

# TRANSFER & STORAGE

TRANSFER AND STORAGE  
OF MERCHANDISE

MERCHANDISE  
DISTRIBUTION

MOVING AND STORAGE OF  
HOUSEHOLD GOODS

JUN 7 1918

Vol. XVII, No. 6

New York, N. Y.

June, 1918

## Motorize Your Equipment Without Spending Money Use the **MARTIN ROCKING FIFTH WHEEL**

**W**HY use freight cars on railroads? Would it not be far more efficient to pile all the freight on locomotives? It would certainly make a big market for locomotives. Besides, a freight car is an awkward looking thing. Sounds absurd, doesn't it?

Do you realize that it is just as absurd and silly and inefficient to use motor trucks to pile freight on when they will do three times as much used as tractors to draw semi-trailers?

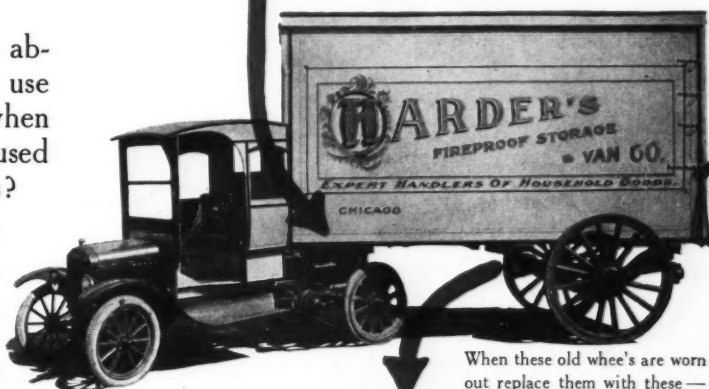
Motor trucks are being used all over the country to relieve the railroads. Some are showing a profit and some are just about breaking even. Think of the profit when the capacity of the truck is increased three times and the operating expense is scarcely any greater.

Ergo—use Semi-Trailers! *Hooverize in power and energy.* Make a profit.

We sell Fifth Wheels and Semi-Trailer Parts from one to ten tons capacity.

*Send for circular giving complete details and prices*

**MARTIN ROCKING FIFTH WHEEL COMPANY**  
SPRINGFIELD MASSACHUSETTS



When these old wheels are worn out replace them with these—



*Martin Rear Construction for Trailer  
Ready to Attach to Body*

# 120 Mile Trip Each Day— Task of this Federal

A 120-mile trip every day!  
This is the task of the Federal operated by Lee Bros. Van & Storage Company between Santa Rosa, Oakland and San Francisco, California.

This is a most severe test of motor truck reliability.

But Lee Brothers have no hesitancy in putting the job up to Federal.

They know that Federals are performing like tasks throughout the country.

They know that in every case Federal, while proving Federal rugged strength and endurance, has shown a marked economy of operation.

"Federal Traffic News" will bring to you each month many more such instances of Federal performance. Write for it.

Federal Motor Truck Company  
575 Federal Street Detroit, Mich.

# FEDERAL

A CAPACITY FOR EVERY BUSINESS REQUIREMENT

*Another*  
FEDERAL



*This is the 2-ton Federal owned by Lee Bros. Van & Storage Company, San Diego, Cal., which makes a 120-mile trip each day*









## Household Goods Shipped *and* Lower Freight Charges Secured

**T**HE shipping problem is difficult today. You Furniture Warehousemen know that, and what you are looking for is its most efficient solution. What's the answer? Listen.

Eighteen years ago this company was formed to afford you men the very service you demanded. Today, thanks to two things—our constant earnest effort toward supplying a freight-forwarding service which would meet the highest ideals of warehousemen, and your hearty appreciation, as shown by your constantly increasing patronage—we are enabled to offer you, now when it is most needed

### a service which assures Saving, Speed and Safety

There are several methods of moving household goods, some of those afforded you resembling in slowness, inconvenience and expense those illustrated by three of the views on this page.

Look at these pictures, and then glance at the correctly loaded car in the lower corner—this car of household goods loaded by the experts of the

## TRANS-CONTINENTAL FREIGHT CO.

Remember, the shipping of household goods is a specialty with us. Bear in mind that *T-C. F. Co. Service is an Asset-Building Service* for you in Good Will and Satisfaction of your customers. Think of its money saving value, and be sure and let us figure on your next haul.

We load household goods at Chicago, New York, Boston, Buffalo and Cincinnati in through cars for the principal cities of the West, Southwest and Florida, don't forget; and also remember, this service effects great savings in freight rates.

**P. S.** Send for the Warehouseman's Handbook on Shipping Goods and Saving Money. It's free, gentlemen. Write for your copy.

### TRANS-CONTINENTAL FREIGHT COMPANY

WOOLWORTH BUILDING, NEW YORK

GENERAL OFFICE, 203 DEARBORN ST., CHICAGO

Old South Bldg., Boston  
Ellicott Square, Buffalo  
Union Trust Bldg., Cincinnati

Alaska Bldg., Seattle  
Pacific Bldg., San Francisco  
Van Nuys Bldg., Los Angeles

Write the Nearest Office





AT the large silica-brick plant of the Mount Union Refractories Company, Mount Union, Penna., Autocar Motor Trucks have replaced horses—each Autocar takes the place of six one-horse dump carts.

These Autocars are on the go twenty-two hours out of each twenty-four. At night they haul coal from the hopper, dumping a day's supply at each of the twenty-nine kilns; by day the trucks haul away ashes from the kilns and dump them at the river bank.



NIGHT—LOADING COAL AT THE HOPPER

The short wheel base of the Autocar makes it possible to operate where large trucks are impractical. With the Mount Union Refractories Company and with hundreds of other manufacturers the Autocar is part of the regular plant equipment.



DAY—DUMPING ASHES AT THE RIVERSIDE

## THE AUTOCAR

CHASSIS \$2050

1½ - 2 TONS CAPACITY

WRITE FOR THE DESCRIPTIVE  
AUTOCAR CATALOGUE. IT LISTS  
SOME 6000 OF THE USERS OF  
THE AUTOCAR MOTOR TRUCK

**B**USINESS houses in four hundred and fifteen different lines use the Autocar Motor Truck—an indication of the part the motor truck is playing in solving the nation's transportation problem.

Of these thousands of Autocar users some own one truck, some hundreds—using them for all kinds of trucking, over short hauls and long.

The confidence of this body of truck buyers is expressed by repeat orders—they know that the after-sale service placed at their disposal by the Autocar Company is an all-important factor in the efficiency and economy of their truck operation.

# THE AUTOCAR COMPANY

Established 1897

ARDMORE, PA.

FACTORY SALES AND SERVICE BRANCHES

New York  
Brooklyn  
Boston

Providence  
Newark  
Philadelphia

Atlantic City  
Wilmington

St. Louis  
Allentown

Baltimore  
Washington

Pittsburgh  
Chicago  
San Francisco

Los Angeles  
San Diego  
Fresno

Represented by dealers at other points

This advertisement appears in the Saturday Evening Post of May 4th and the Literary Digest of May 25th.

PLEASE MENTION TRANSFER & STORAGE WHEN WRITING TO ADVERTISERS

# TRANSFER & STORAGE

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ST. LOUIS, 1537 Boatmen's Bank Bldg.



## For the Shipper

Now as never before is the Judson consolidated car service for Household Goods and Automobiles an absolute necessity to avoid congestion, delays and loss.

Now as never before are the Judson reduced rates in the movement of freight an attractive feature for conserving the shippers' funds in this period of general high costs.

## For the Railroads

Now as never before is our Judson plan of operation desirable as a means of saving labor and reducing the demands on equipment with a corresponding relief of hazard.

Now as never before are the Judson consolidated cars serving to the utmost limit the carriers' interest in moving tonnage of Household Goods and Automobiles.

## For the Warehouseman

Judson Service provides Storage, Packing and Hauling which would be lost if goods are sold instead of being shipped.

## Ship Judson

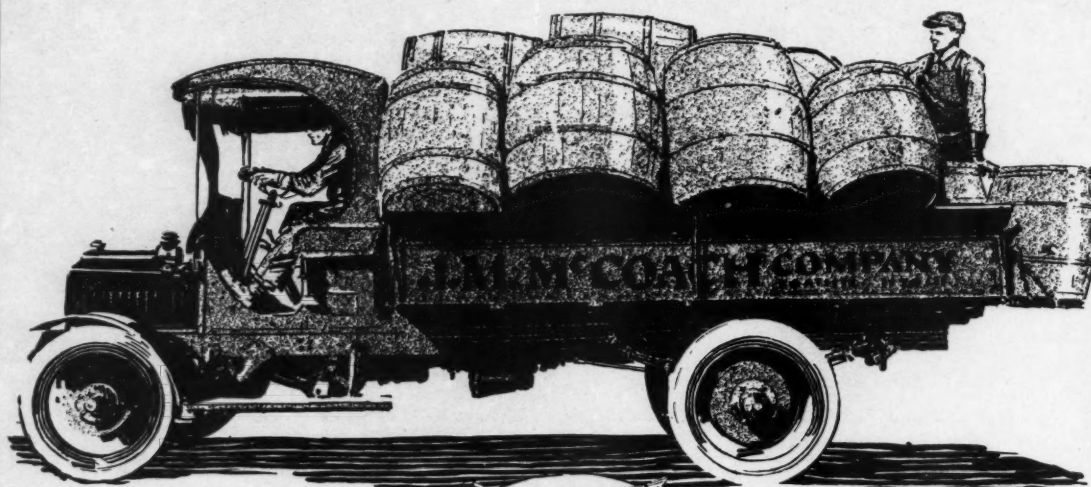
Save money

Save wear

Save temper

Save tear

**Judson Freight Forwarding Co.**



## A Truck that gave Complete Satisfaction and met Every Requirement

This  $3\frac{1}{2}$ -ton U. S. truck has been in daily operation in the service of J. M. McCoach & Company of Huntington, W. Va., for six months.

During that time it has not given them the least trouble nor has it cost them one cent for repairs.

This company says that "our U. S. truck has given complete satisfaction and met every requirement."

For nine years the makers of U. S. trucks have been building trucks which give the maximum of service.

The result has been that the U. S. truck is known as one of the five best trucks in America and U. S. owners are generous in expressions of their satisfaction — more than half of them buy more U.S. trucks.

*Chain Drive —  $2\frac{1}{2}$ ,  $3\frac{1}{2}$  and 5-ton*

*Worm Drive —  $2\frac{1}{2}$  and  $3\frac{1}{2}$ -ton*

**THE UNITED STATES MOTOR TRUCK CO.  
CINCINNATI, O.**





# TRANSFER & STORAGE

PUBLISHED MONTHLY

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Volume XVII

NEW YORK, JUNE, 1918

No. 6

*"THE public warehouse is an essential part of modern business," said a prominent manufacturer the other day. "It's a natural member of the business family, and the time has come when the warehouseman must stop treating his industry like a stepchild."*

## *Wanted* CO-OPERATION

*Warehousemen Must Work Together on Merchandise  
Distribution to Bring Industry to Its  
Maximum Efficiency*

**W**HETHER this statement is overdrawn or not, is open to debate, but it seems evident that in one respect, at least, the warehouseman is failing to aid his industry in the development that cannot help but follow if it is given a chance. The situation in question is that of national distribution of merchandise.

This activity is comparatively new for warehouses, but it is of vital importance if the warehouse is to reach its maximum efficiency. The question may properly be asked: Does the warehouseman consider merchandise distribution as an important part of his business, to be given the care and attention that he bestows on the hauling and storage end, or as a side issue, to be handled with as little study and thought as possible?

The distributor naturally considers it of first importance, for it enables him to eliminate costly private delivery systems and to keep spot stocks in whatever locality he pleases at a minimum cost.

He hasn't proceeded very deeply into the subject, however, before he discovers that in dealing with ten warehouses he is doing business under ten different systems. He wouldn't permit such a condition to exist in the case of ten branch offices of his own concern, but he must stand for it in the case of the warehouses.

Regardless of the viewpoint of the warehouseman, the distributor rightly regards each warehouse with which he deals as a part of his own business, so far as the storage and distribution of his product is concerned. He feels there should be some uniformity of business accounting, some standard form of procedure that would put all his warehouse transactions on a common ground.

Dealings between distributors and warehouses roughly fall into three groups. The first includes the distributors who maintain spot stocks in various warehouses and, in a measure, make the warehousemen their distributors for a given territory. The

second includes the distributors who do no storing, but who call upon warehouses to re-ship their bulk shipments to jobbers and dealers who have already paid the manufacturer for the goods. The third group includes the concerns which depend upon warehouses to receive and mail carload lots of catalogues, circulars, etc.

A prominent example of the first group is the Bon Ami Co., which uses public warehouses so exten-

sively that it has evolved its own business forms for reports of all shipments made and stock on hand, special orders to warehousemen regarding shipments to be made, orders for advertising matter from the warehouse stock and blanks covering the particulars of payments on freight and express items. Many other large distributors have developed similar systems which work satisfactorily for their purposes and which prevent confusion.

## Warehouses Need Uniform Systems

As a typical example of how a warehouse may successfully handle the output of a concern whose product does not require storage, the case of the Pictorial Review Co., of New York, is cited. This company uses warehouses all over the United States for the distribution of patterns, catalogues, circulars and the like. The New York office takes care of the Eastern and Southern states and the Pacific coast, leaving the central section to the Chicago office. Monthly shipments are made to warehouses, and re-shipments by the warehouses to dealers are required immediately.

### Manifest Accompanies Bulk Shipments

Take a shipment of 500 patterns from the New York office to Jacksonville, Fla., as an example. Fifty patterns are consigned to John Doe in Miami, twenty-five to Richard Roe in Tallahassee, and so on. These small packages are addressed to the proper individuals and the entire shipment sent in bulk to the Jacksonville warehouse handling the company's business in that territory.

Each bulk shipment is accompanied by a manifest which bears the name of each local dealer, his street address, his city or town, state, number of bundles to be sent to him and their weight. In the column headed "Re-shipment" goes the instruction, "Cheapest Way—Freight, Express or Parcel Post," indicating the method by which the warehouseman is to forward each separate bundle to the consignee. The carbon copy of the manifest is kept by the New York office for checking-up purposes.

This is the only form used by the company, which has found that the simple method involved prevents confusion. The instructions contained in the manifest are capable of only the correct interpretation by the warehouseman. He checks his re-shipments against the names and addresses in the manifest and bills the company for freight, express or postage. The company, in turn, checks the bills against the carbon copy of the manifest.

### Distributor Out of Transaction

The Pictorial Review Co. is satisfied with its dealings with warehouses, and believes its method represents the simplest and most nearly standardized form of such a transaction.

Still another type of the national distributor who uses the public warehouse is the one whose method makes his transactions distinctly a deal between the warehouseman and the jobber or dealer in the commodity in question. The Royal Baking Powder Co. is an example of this type.

Goods ordered by jobbers and dealers are shipped in

carload lots to the warehouse serving the territory where the business originates. They are sold when they leave the factory, and from that time on they represent a transaction between the warehouse and the buyer. A simple letter of instruction accompanies each carload lot, no forms whatever being used.

### Buyers Arrange Deliveries

On reaching their destination, the goods temporarily become the property of the warehouse, which notifies the various buyers that their goods have arrived. It then becomes the duty of the buyer to get his goods from the warehouse. If he is late in coming for them, they are usually placed in storage, the accruing charges being met by the buyer.

For this type of distributor, the method described is of the simplest nature. It gives rise to no misunderstandings between the warehouse and the manufacturer, which, in most instances, would have to be settled by correspondence. Whatever difficulties present themselves are between the warehouse and the buyer and can be settled easily, since both parties are on the ground and both are familiar with any local conditions that may have occasioned them. The term "local conditions" may be made to include the warehouse accounting system, storage rate-fixing basis and similar causes for complaint.

### Must Recognize Opportunities

But it doesn't appear that the warehousemen of the country generally recognize the opportunities in the way of business advancement that are linked with successful distribution of merchandise through the medium of the public warehouse. It seems only reasonable to believe that if they did they would waste no time in bringing the service they can render up to the standard where it cannot be rejected by the national distributors.

Of course, the main objection cited by manufacturers is the lack of anything like a uniform system as applied to any two warehouses in the country. Aside from the fact that all houses are in the storage business, they seem to have nothing in common according to the distributors. Their accounting systems and business forms as applied to merchandise stored with them are as numerous as the warehouses themselves, and there are approximately 5,000 such institutions in the United States.

According to some of the large distributors, warehousemen the country over are notoriously poor correspondents. Letters directed to them, it is claimed, are more frequently unanswered than otherwise. This is bad busi-



ness and not calculated to induce confidence in the ability of the warehouse to handle spot stocks of merchandise. To correct this bad habit would by no means make warehouse merchandising easier, but it would help. It is simply a matter of education—to teach the warehouseman who errs that the demands of common courtesy require that business correspondence at least should be answered promptly.

This particular failing is responsible for one of the complaints made by merchants against warehouse distribution. It is necessary that the distributor know exactly the condition and amount of the spot stock on hand in a given warehouse whenever his business requires. This may be daily, weekly or monthly. Unless he has traveling auditors, such as the American Sugar Refining Co. used in the days before government restrictions on sugar made impossible the maintaining of spot stocks, he must depend on the warehouseman to furnish him this information. It is his assertion, however, that many warehousemen pay little or no attention to his requests for statements.

In the matter of rates, probably, what appears to be the greatest difficulty arises. Rates for hauling and storage depend entirely on local conditions, and the factors governing these conditions are many. Some distributors find fault with the high rates that prevail in certain localities, at the same time admitting that they do not expect the establishment of a uniform rate for the country or any considerable part of it.

#### Uniform Rate Method Urged

A uniform method of determining rates, however, might operate to the advantage of both parties to the controversy, for it would enable the distributor to check up his bills with the same knowledge as to how the various charges were incurred as is possessed by the warehouseman.

These various charges for the many activities involved in the handling of a given distribution "job" have very often brought the warehouse into disfavor with the distributor. A bill, for instance, will contain an item for hauling, another item for storing, another for marking packages for distribution to customers, another for delivering, and so on through the list. In addition to being

confusing, this method gives rise to as many causes for argument as to the correctness of the bill as there are items entered.

A large Eastern warehouse experienced considerable difficulty in this respect and was in the way of losing some good distribution accounts as the result, until the manager hit upon what would seem to be the obvious remedy. Instead of basing his charges on each item involved in the operation, he made the distributor a blanket charge covering the entire transaction and including, of course, a fair profit for himself. The cause for argument was removed at once and both bill and accounting were simplified. This method, the warehouseman says, has won over a number of new customers.

#### Blanket Charge Approaches Uniformity

A blanket charge, it has been pointed out, as nearly approximates a uniform rate as is possible under existing conditions. It gives the transaction of storing and distribution a certain definiteness that it lacks otherwise, and immediately appeals to the big manufacturer on that account.

These objections hardly scratch the surface of the differences between distributors and warehousemen, but they serve to show from the viewpoint of the distributor the nature of the things that stand in the way of the maximum use of warehouses for national distribution purposes.

The distributors are not inclined to be over-critical. They admit that the warehouseman has difficulties that are greatly increased under the present war-time conditions and they are willing to make allowances. It is their contention, however, that some effort should be made to standardize the warehouse business along some of the many lines that would seem to lend themselves to standardization. As the situation stands today, the diverse warehouse systems in operation have made it practically impossible for distributors to be of much assistance in straightening out the tangle, except to bear the burden of making their own business practices conform to a variety of methods. Inasmuch as it is the distributor who is in the market for service, it would seem only fair to assist him in getting it without expecting him to make all the concessions.

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## Rate Increase for Fruit Shipments Approved

**R**ECLASSIFICATION on eastbound transcontinental canned foods proposed by the railroads was recently approved in a decision handed down by the Interstate Commerce Commission in Washington. The effect of this reclassification would, in general, be an increase in the rates on fruits in wooden containers shipped from California to the Atlantic ports and other Eastern destinations. This tentative decision was filed on the railroads and the shippers involved in the proceedings, and they will be given an opportunity to express their views thereon before the Commission makes it final.

These commodities are now transportable under a commodity item providing for the movement of canned goods

and preserves from California terminals and intermediate points taking the same rates, to Eastern defined territory, that is, from the Missouri River to the Atlantic Seaboard, and other Eastern destination points. Under the changed rate provisions, dried, evaporated or fresh fruits or raisins, and dried, evaporated or pickled vegetables, in glass, earthenware or metal cans, are to be excluded from the application of the rates heretofore provided and higher commodity rates now applicable to the transportation in wooden containers of the same commodities similarly processed and not different in character, are to be imposed. The attorney examiner for the Commission has recommended that the change in classification be approved.



*A Story That Will Give You a New Slant*

# "Spend Money and Live

*—or Save It and Die"*

By G. A. GRAY

"N O, sir. We'll install no motor vans. We've always done business with horses, and we won't change now."

Thus delivering his motorless ultimatum, Caleb Barker, Sr., turned back to his desk, leaving Caleb, Jr., to air his modern ideas to his heart's content in the vast spaces of Barker's Warehouse.

Caleb, Sr., had established the business in Lafayette and profited greatly thereby, without worrying himself over innovations in methods and practice. To his way of thinking, Barker's Warehouse was an institution about as likely to go wrong as the Bank of England, the Brotherhood of Man, or the solar system.

Advanced ideas were no more applicable to Barker's Warehouse than a card index system would have been to Noah in listing the animals. Caleb, Sr., prided himself on his ability to belittle modern business. He had all he could handle with his existing equipment. Why worry?

But Caleb, Jr., was handicapped with a college education and a fool notion that "efficiency" might be found in many places besides Mr. Webster's best seller if anyone took the trouble to put it there. Moreover, he would occupy his father's desk in the office of Barker's Warehouse—the master of a business that was firmly established when Lafayette hadn't even a Board of Trade to bless itself with.

## Callahan a Progressive

Young Barker whistled, lighted a cigarette and betook himself, with his rubber-soled shoes, spotless crash suit and 1918 model straw hat, away from the institution. He whistled himself right up to the front door of the Callahan Cartage & Storage Co., an up-to-the-minute concern owned and operated by Michael Aloysius Callahan.

Callahan had hammered his way from the hurricane deck of a one-horse truck to the proprietorship of a business to be reckoned with. In the old days, he had tooled a moving van for Caleb, Sr., and in his leisure moments had dandled young Caleb on his knee. Although the Barkers' business rival, Callahan took far more pride in Caleb, Jr., than did the young man's father, and still maintained his place as mentor and confidential adviser.

"Good morning, young man," was his cheery greeting. "How's business?"

## CALLAHAN TELLS HIM HOW

*AMERICA is at war. The able-bodied men of active age are in the trenches in France or in the training camps or munitions plants at home. But there is still the ordinary work to be done here. The conservative storage and warehouse man must become a radical, at least so far as doing things he never did before is concerned.*

"Business," replied Caleb, Jr., "is not what might be called well preserved. When we have business we can't take care of it, and when we can take care of it we can't get it. Otherwise, things are balanced up pretty well. We lost a good job yesterday. Folks moving over here from Tarr's Landing and—"

"And it was a twenty-five-mile haul and would mean four van loads, and you couldn't do it on time—I know," Callahan finished for him.

"Oh! so you got the job," said Caleb.

"Sure," smiled Callahan. "No job at all with motor vans."

"But that isn't the only trouble," went on the son of the institution. "We can't get men to handle the stuff at the warehouse, even though we do pay as high as any firm around here."

## Man-Supply Cut Off

"Of course you can't," replied Callahan. "You couldn't get them if you paid twice as much. The man-supply has been cut off. I don't know whether you've heard about it or not, but there's a big three-ring war, with two stages and a side-show, playing an extended engagement in Europe. Everybody except Thibet and Iceland is busy trying to keep the Boss Butcher of Berlin from plastering a mechanic's lien all over the universe. Uncle Sam and several million of his able-bodied nephews have strapped on their zinc derbies and rolled up their sleeves and are now showing the world and everybody else how a Baker can put the skids under a Butcher. To slide the Potsdam Pirate into cold storage takes men—men in France and men in munitions plants at home. That pulls them out of other jobs, but the other jobs have to be done just the same.

"A woman can collect fares on a street car, but she can't waltz a three-hundred-pound case of dog biscuits or dynamite across a warehouse and pile it on top of a stack of other cases. That lets her out as a freight handler, but your case still has to be juggled. What do you do? Well, if you want to help win the war and keep your business going at the same time, you begin to give some thought to labor saving devices.

"You find out that in unloading a carload of merchandise, for instance, it isn't necessary to take a day for the job and tie up half a dozen men piling the stuff on your

little hand trucks and then pulling and lifting it onto the location by man-power.

### Stop Wearing Out Men

"Buy yourself an electric tractor and a herd of trailers. Then you can line them up on your unloading platform, dump the stuff from your cars or vans, throw in the clutch and start the parade. Two men can load a whole fleet of trailers and run them to any part of the warehouse you wish. That alone saves time, as well as wear and tear on your men.

"When you get your trailers where you want them, say, for instance, there's a heavy case to be placed. Your men can't lift it to the top of any of the piles because of its weight, so you have to make a new place for it somewhere on the floor. That means waste space at the top and also waste space on the floor, because if you could lift it on the pile you would have your floor space for something else. As it is, you waste a big part of your storage rooms, the part between the top case and the ceiling, because your men can't lift heavy cases and barrels up that high.

"Do you know that modern automobile storage houses are built with only about half the distance between floors and ceilings that ordinary buildings have, and that when old ones are remodeled to meet modern requirements, they have what they call a mezzanine floor, or a framework to support automobiles half-way between the floor and the ceiling? These storage men say that if their rooms are more than just high enough to admit a machine or a man standing upright they are wasting half their space. With their low ceilings and mezzanine floors, they can take care of twice as many cars as they could before.

### Utilize Waste Space

"The same thing is true of a merchandise warehouse, only you don't have to go to so much trouble to make things right. You will find on the market a device they call a tiering machine, which is really an elevator you can move wherever it is needed. Two men can move your heaviest case on to this machine, which you have wheeled to the required location, and lift it to the ceiling. You can get your cases and barrels into any nook or cranny up near the ceiling where they will fit, and you are utilizing what was waste space before."

"Sounds like a darn good idea," remarked Caleb.

"Maybe you can tell me the best method of storing trunks, now that you're at it. We pile ours up one on top of another, until we can't go any higher, then we start another pile. If a man suddenly wants a trunk on the bottom row, all we have to do is to take down the whole pile to get it."

"Well, maybe I don't know the best method, but I've worked out one that beats yours a mile," answered Callahan. "I'm having long steel framework tiers built in my trunk room. Each tier is as deep as the length of an average trunk and is divided from floor to ceiling into sections wide enough to hold a trunk. The tiers back up to each other, leaving a working alley between each double row. Put a trunk in any one of the sections, right on the floor, slide into the grooves over it a shelf like the grating they put in the oven of a gas stove, and you have that trunk in a little compartment all by itself. The shelf makes a floor for the next trunk you store in that section, and so on until you fill it up to the top. Then you can get at any trunk you want without touching any other one."

"You're a great little advertiser for the labor saving device makers," said Caleb, Jr., "and your ideas listen great, but they cost money, and with

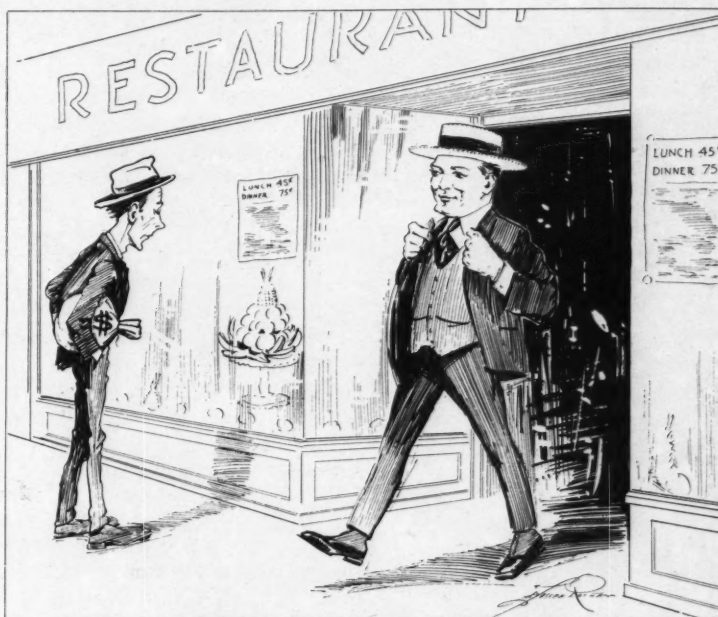
business like it is now we can't afford to spend money."

"Sure they cost money," agreed Callahan, knocking the ashes out of his pipe and preparing to supervise the unloading of one of his big motor vans that had just rumbled up to the platform. "So does an operation for appendicitis cost money. But when your appendix is bad you've got to have it amputated. Business has gone the same way. With the men all making the world a decent place to live in, old-time business methods have gone bad, and you'll have to amputate 'em or your business will die, just like you would if your appendix got to rampagin' around. The operation will cost money, but you've got to spend it.

"It's a question of spend money and live—or save it and die."

"Well," mused Caleb, "maybe I'd better have another talk with father."

**NOTE.**—In the next article in this series Callahan tells of the importance of the outside man or estimator in the household moving and storage business. He is his firm's point of direct contact with the public, and he should know his business like an expert



"Spend and Live, or Save and Die"





## Any Load To Fill the Van

**A** VAN owners' return loads bureau has been established in New York City, but it seems that many van owners outside that city have no conception of how to make proper use of this bureau. Van owners know, at least they should know, that there is a difference between a van owners' and a merchandise return loads bureau. The difference is this, there is more merchandise to be hauled overland by motor trucks than household goods, therefore a return load of merchandise can be more easily secured on short notice. People do not move household goods from one city to another at a few moments' notice just because a van owner from the city to which they expect to move is looking for a load.

Van owners have gone to New York from other cities and called at the return loads bureau and asked for a return load. When the bureau informed them it could not get them a load of household goods just at that time the van owners seem surprised. In some cases the bureau did offer them a return load, but as it was merchandise it was refused.

From now on it would be well for all van owners to get in touch with the return loads bureau in the city to which they expect to go before the trip is started. This would give the bureau time to do some investigating to learn whether there is a load to be had for the city from which the van owner is coming.

## Warehouse Co-operation Needed by Distributors

**P**UBLIC warehouse conditions as applied to the great activity of merchandise distribution have reached a stage which calls for immediate action on the part of the warehousemen if the industry is to attain its greatest usefulness in this field. Lack of co-operation is the outstanding difficulty, and the many phases it presents make a formidable barrier to the success of warehouse distribution.

Briefly, the big manufacturers, and the small ones as well, have encountered a most confusing situation in their dealings with warehouses. They have found a variety of accounting systems which provide a continuous source of worry to them in the transaction of their business. They have encountered a variety of rates and methods of determining rates that in effect make each warehouse account an isolated case subject to individual treatment. They are anxious to use warehouses for their purposes, but they are not anxious to be left with the task of untangling the snarls resulting from this exploitation of individualism.

The time has come for the warehousemen to get together on the question, and, incidentally, on many other questions pertaining to their business. In the first place, the suggestion is made that they engage in a thorough study of merchandise distribution and their countless methods of handling it. Undoubtedly they will find much that could be standardized. Their accounting systems could be made uniform and their methods of determining rates placed on a fixed basis that will leave no room for misunderstanding.

A committee of merchandise warehousemen should be formed to make this study, and then to confer with a similar committee of distributors from which would be learned the other side of the question. With this information to work on, there seems to be no question that an efficient system could be evolved, for example, whereby the storage and distribution of a stock of shaving soap in Bangor, Me., would be subject to the same business treatment as would apply in Portland, Ore., or St. Louis, Mo., or Austin, Texas.

## Celebrate Flag Day

**O**N June 14th, the 141st anniversary of the adoption of the Stars and Stripes as the National Emblem by the Continental Congress, Flag Day will be observed throughout the United States. This year the day has a new significance. For the first time in history the flag is being carried in Europe by an American army at war.

Displaying the flag is now a daily custom with business the length and breadth of the land, therefore Flag Day this year must be marked in some additional way. Let the great transfer and storage industry make the day the beginning of a never-ending effort to spread the doctrine of Americanization wherever its influence may be felt.



## How to Do More Work With Fewer Men

WHILE it is an understood fact that many employees of the transfer and storage industry have resigned their positions to join the colors or to seek other positions where they will receive higher wages, there is no cause for worry on the part of the warehouseman if he will attempt to offset the loss of man-power which now exists in a great many warehouses. Conditions are changing; the warehouse business is the same as any other, and if it expects to keep pace with other lines of business it must adopt methods that will conform to the changes.

There are two classes of warehousemen who do not claim a scarcity of labor, or, at least, they say it has not affected their business to any extent. The first is the warehouseman who employs men over the age of 35, and who has had these men in his employ for a number of years. The second class is the warehouseman who has made a study of the warehouse business and who is operating every department on a 100 per cent efficiency basis.

From now on, for some time to come, the warehouseman will have to operate his business with less labor than in former years. This can be done in only one way, and that is by the officers of the company making a study of each department separately.

For example, the method of keeping records should be such that any record can be had at a moment's notice. Many warehousemen have all the necessary equipment for keeping efficient records, but few follow any particular method. Many warehousemen have a habit of mixing all one or two employees ten or fifteen minutes to find it.

### Four-Wheel Trucks a Saving

The handling of merchandise is another activity in which warehousemen not only can reduce labor but in many instances can do the work quicker and at less cost than at present. Many merchandise warehouses have wide aisles, but they still haul goods a length of 100 or 200 feet with the old two-wheeled hand truck. Whenever a warehouse handles large amounts of goods and has wide aisles, it should use four-wheeled trucks. A man working with a hand truck quickly loses 50 per cent efficiency.

Where the hauls are greater than 100 feet and where there are large quantities of goods being continually moved in and out of the warehouse, the electric industrial truck should be used. This truck can be used to carry goods or to haul four-wheeled trailers made up in trains.

Electric trucks have been installed in railroad freight terminals and in private warehouses, and in every one of these it has reduced the time, labor and expense for handling goods. As an example of what saving may be effected by installing the industrial truck, figures on the man-power of a New York freight terminal may be cited.

### Mechanical Devices Reduce Labor

Before the installation of the electric industrial and the four-wheeled truck, the terminal employed 110 men and it was always in a congested condition. The terminal often refused freight early in the day because of this condition. After the trucks were installed it not only handled double the amount of freight, but reduced its force to less than seventy-five men. This is only one instance, and many others could be cited where the gain has been just as large in proportion to the labor employed and the goods handled.

Another labor saving device that can be used to advantage in either the household goods or the merchandise warehouse is the portable elevator. This machine may be used to pile boxes, crates, bales or barrels in the warehouse, or to load or unload wagons and trucks. With the portable elevator, two men can pile heavy goods to the height of the ceiling, a job which originally took double that number of men. There are many other devices, such as the automatic tacking machine for tacking labels on boxes; the Signode system for strapping boxes, crates, etc., that will save time, labor and expense for every warehouseman.

Many large rectangular warehouses have entrances at both ends, but elevators at only one end, making it necessary to haul goods the full length of the building to reach the elevators. After the goods reach the first floor, in many instances they are hauled to the door at the other end of the building. This additional hauling can be eliminated, especially where uniform goods are handled, by installing spiral chutes at the end of the building where there are no elevators.

It is not expected that a warehouse can install every one of the labor saving devices described here, but at least one or two will save time and labor for every warehouseman in the country if adopted. Before a warehouseman installs electric industrial trucks, portable elevators, spiral chutes, etc., he should make a study of his particular needs, because where a spiral chute will be economical in one warehouse it would not be in another.

### Labor Shortage Can Be Relieved

*BY standard method of keeping records; by adopting mechanical devices which give warehouses more efficient means of handling goods; by installing hatches or spiral chutes when handling uniform package goods or boxes from the upper floors to the loading platform on the first floor, or by piling goods in tiers so that two gangs of men can work at the same tier without being in each other's way.*



*The office of the New York Van Owners' Return Loads Bureau*

## Steps to Take for Establishing a Van Owners' Return Loads Bureau

### Van Owners Will Increase Earning Power of Their Vehicular Equipment by Getting Together and Forming Such a Bureau

**T**HE New York Van Owners' Return Loads Bureau was established after many of the members complained that they were unable to make a profit in overland haulage work unless there was some other means whereby they could secure a return load. At one of the meetings held by the association it was found that sixty of the members did long distance work, so it was decided to rectify these conditions by establishing a return loads bureau. A committee of twelve members was appointed to establish and make whatever rules were necessary to maintain the bureau. The membership of the association consisted of 127 members, and \$2,000 was borrowed from the members to establish and maintain the bureau. This money is to be paid back to the members when the bureau is self-supporting.

#### Cost of Maintaining Bureau

On April 1, an office, 10 by 18 feet, was rented at a cost of \$25 per month. A traffic manager having a knowledge of purchasing supplies and operating motor trucks, and a stenographer who also knew many of the details of the transfer and storage business were employed at a combined cost of \$280 per month. The furnishings of the office consisted of two desks, a filing cabinet for correspondence, a typewriter and table, a few chairs, the cost of all being approximately \$75. Two telephone trunk lines were installed at a cost of \$19.92 per month. Sta-

tionery, facsimile letters, advertising and other miscellaneous items were purchased for the sum of \$37.50. The amount necessary to operate the New York Van Owners' Return Loads Bureau is in the neighborhood of \$360 per month.

When a van owners' return loads bureau is being established, one of the first things that should be done is to get in touch with all bureaus within a radius of 300 miles. This does not mean only the van owners' bureaus, but every bureau that operates within that radius. On getting in touch with other bureaus, it should tell them that it has special facilities for handling furniture; it should also give them the number of van owners and trucks listed that do overland haulage work. In fact, it should put everything before the bureaus so that they can and will co-operate with each other.

#### Records Necessary in Operating Bureau

In operating a merchandise return loads bureau, all that is necessary is a few records, whereas in the case of the van owners it is necessary to keep a chart of the men doing that class of work. The names on this chart should be arranged alphabetically, so that when an order is received by the bureau the first three men on the chart can be notified regarding the load.

This is done until three van owners have been found who are interested in getting the work. These three van



owners are given all information regarding the load, and they call on the customer and make a bid on the work. When the next order is received by the bureau, the list is taken up where it was left off. The reason three van owners are given data regarding any work is so that none of the van owners listed with the bureau can get the impression that any partiality is being shown.

## Should Charge Percentage for Work

To maintain a van owners' bureau it is necessary to charge the man receiving the load a percentage, part of which is given to the informer, the rest going toward the maintenance of the bureau. It is also important that records be kept of these names, the amount the man getting the work receives and the amount the informer receives, because very often the man who has received the load will forget to turn in the percentage due the bureau.

Fig. 1, the daily record sheet shown in the accompanying illustration, is used to keep a check on the date and the destination that van owners will be in other cities. When the bureau receives this information, it gets in touch with van owners in the city where the load is going and tries to get its member a return load. A great many more return loads could be had if the bureau would also get in touch with other bureaus along the route which the van owner will take.

### Keep Record of All Work

Fig. 2 is a record kept in file form and shows that the A. B. C. Storage Co. has notified the bureau that it has a load going from New York to Boston that it wishes to have turned over to some other van owner. Below is given the names of the companies that are interested in receiving the work and who will make a bid for it. The name of the customer and the price he wishes to pay are also given on this card. Fig. 3 is a copy of a form letter sent out by the Van Owners' Return Loads Bureau asking the van owners in Greater New York to keep the bureau informed when they receive out-of-town work, so that the bureau can assist in getting the van owner a return load.

The fundamental principles of operating a van owners' and a merchandise return loads bureau are in some respects similar. They are both operated to give and receive the return load. But, these two bureaus are maintained by entirely different organizations. While the merchandise bureau is maintained by donations from

**VAN OWNERS' ASSOCIATION OF GREATER NEW YORK**  
BOROUGH'S OF MANHATTAN AND BRONX, INC.

NEW YORK CITY

THOS. CHAS. S. MORRIS  
Q "MANHATTAN P. O." ROOMS CO.  
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YERGENBERG, THOMAS F. MURRAY  
ROBERT A. WARD  
SEABOARD GRANT WAYNE  
WEST END BROS. CLOTHING  
500-502 WEST 9TH ST.  
TROTTER, DANIEL SCHWARTZ  
REARVIEW GAR & TAILORING CO.  
230 EAST 67TH ST.

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**MANHATTAN & BRONX**

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LAWRENCE BLUMENFELD      CHARLES F. R. STEINWOLD

April 8th 1918.

"SAVE AND SERVE" is the popular slogan today. The duties of this office are to "serve" you in such a manner that you will "save" money.

Are you interested in having your trucks more than 50% efficient? If you will keep this office informed as to your out-of-town work, we can "serve" you by putting you in touch with an in-coming or out-going lot and thus "save" you money by reducing your dead mileage. For this purpose we need information as to your facilities, the capacity of your trucks, whether gas or electric, just what kind of country work you are interested in, and your zone limits, if any. With this information at hand, this office may serve the extra load.

We have already put several of our members in communication with inquiries which have reached this office.

Every member of this Association is vitally interested in the success of this office but we can succeed only through cooperation. Telephone Columbus 2C89 or 2090 when you have any country work. At least we can become acquainted and we may be able to "serve" you.

Our charges for these services are but a small item and go toward the maintenance of this office.

Yours very truly,  
Purchasing Committee,  
By

*Fig. 3—A fac-simile letter sent out by the New York Van Owners' Association notifying van owners that it has established a return loads bureau.*

merchants, transfermen and the War Department, it does not have to charge a percentage on the loads received through the bureau. Whereas the only way the van owners' bureau can be established and maintained is by an association or its members lending money to the bureau until it is self-supporting, and the only way the bureau can be self-supporting is by charging a percentage on the income received by the van owner for every load he receives through the bureau.

### Carry Any Class of Goods Back

The New York Van Owners' Association has established a return loads bureau to assist its members in receiving the return load, but up to the present time many of the members do not seem to grasp the meaning of a return

DAILY RECORD SHEET			
DATE	INFORMANT	DESTINATION	DATE
5/15	Chas. Strong	N. Y. to Phila	5/23
5/15	Hayes Storage	N. Y. to Chester, Pa.	5/20
5/16	Eagle Warehouse	Brooklyn to Greenwich, Conn.	5/20
5/17	Abbott Mrs. Jones, 125 Street	N. Y. to Boston	5/28
5/18	White Storage Mrs. Humphries, 185 Aud. Ave	N. Y. to Albany	5/24

*Fig. 1—On the daily record sheet is recorded the van owners that are looking for return loads from other cities. The officer in charge of the bureau always keeps this record before him so that he can get in touch with other bureaus and try to get a load for the van owner who is going to the city designated in the third column*

From New York To Boston, Mass  
Date June 5th  
Reported by A B C Storage Company  
Given to  
Security Storage Company  
Johnson's Storage Company

*Fig. 2—This card is used when a van owner has a load and wants to give the work to some other company. This report shows that two van owners will call on the customer and make a bid*



load. They will carry a load of furniture between New York and Philadelphia, and if there is not a load of furniture at Philadelphia they will come back empty. Other van owners will haul furniture from Washington to New York, and after they have delivered their load they will call at the Van Owners' Bureau in the latter city and ask for a load of furniture going in their direction. If there is not a load to be had, they go back empty. In many instances, these men have been offered a load of merchandise, which is generally refused, the van owner saying that he did not wish to damage his van.

#### Where Possible Roll Up Pads

In many of the above cases the van owners could have rolled up or removed the pads on the inside of their vans and taken back the return load of merchandise. By this is not meant that the van owners should haul machinery, but they can haul packages, boxes or crates. It does not make any difference how efficiently a return load bureau is operated, it can never be a success until vans carry a return load, and the only way this can be done is by the van owner taking other goods when furniture is not to be had.

Van owners in other cities can establish and maintain return loads bureaus at approximately one-half the amount that it is costing the New York Van Owners. The New York bureau would not need a traffic manager if it were not doing collective purchasing, but due to the shortage of materials caused by the war, this department of the bureau will not be on a paying basis for some time to come, so all the expenditures of maintaining the bureau will have to be charged, at least for the time being, to the return loads department.

#### Figures for New Bureaus

The expenditures of operating other return loads bureaus should be as follows: A small office can be rented in almost any city in the country for \$25 per month; a young woman who has some knowledge of the transfer

and storage business can be hired for \$80 per month; telephone service can be had for \$10 per month, and for stationery, advertising and other miscellaneous items the amount should not be over \$37.50, making a total of \$152.50, the cost of maintaining the bureau for one month. The bureau would, of course, charge a percentage on all loads received from it, which in turn would not take very long before it was self-supporting, as \$10 percentage on 20 average loads would more than pay the expenses for the month. Of course, for loads going a greater distance, or where a greater income was involved, the bureau would receive a larger percentage. In the busy moving seasons the bureau should handle two or three times the amount mentioned above, which would give it a larger income. This money should be used to support the bureau in slack seasons of the year.

If all bureaus kept in touch with each other, there is no reason why empty vans and trucks should not be a thing of the past. This can easily be done by corresponding with each other when there is time, or telephoning when there is not time to write, the telephone call, of course, being charged to the man looking for the return load.

#### Other Bureaus Should Be Established

The van owners of Philadelphia, Albany, Rochester, Buffalo, Pittsburgh, Cleveland, Detroit, Cincinnati, Indianapolis, Chicago and St. Louis should get together with other van owners within a radius of 25 miles, appoint a committee and establish a return loads bureau. By doing this, it would not only be found that greater profits would be derived from overland haulage of household goods, but it would bring the men together so that they could exchange ideas which in the end would mean a standardization of all methods of doing business. These bureaus could be established and operated on a similar basis to that used by the Van Owners' Association in New York.

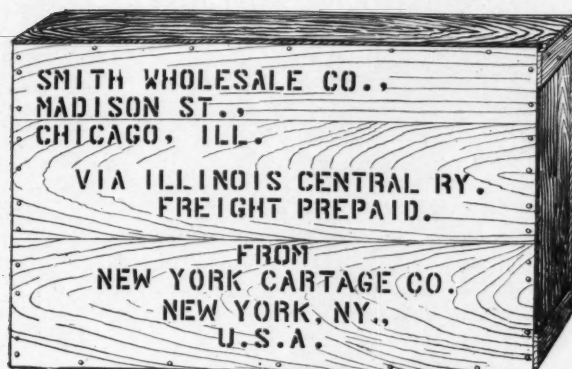
## Old Wagon Used to Haul 25-Ton Wheels



*The Rochester Carting Co., Rochester, N. Y., recently contracted with the Eastman Kodak Co. to haul thirty-five wheels similar to the one shown in the accompanying illustration. These wheels weighed 25 tons each, and measure 18 feet in diameter with a face 4 feet wide. On a level street, six horses handled these loads without difficulty, but on one section of the haul a stiff grade made it necessary to use ten horses and two 5-ton gasoline trucks. The wagon used is one that has been in the service of the Rochester Carting Co. for over 25 years*

# Proper Marking of Shipments Reduces Loss

Transfer and Storage Men Can Assist in Solving  
Congestion Problems



*Legibly marked package with address in stencilled letters.  
Information complete*



*Carelessly marked package with illegible lettering.  
Insufficient details*

THE transportation of war material and the increase in factory production throughout the country gives the transportation companies and the transfer and storage men more shipments to handle. Employees of these companies are enlisting in Uncle Sam's great army, reducing the help necessary to take care of the increased shipments. There is more freight and express to forward and less help to handle and transport it. Under these conditions, how are the transfer and storage men or the railroads going to get shipments through? How are they going to stop the claims and losses? How are they going to satisfy their customers and get their goods to them promptly? This is a problem so large that the Government has taken it in charge. The future of our nation depends to some extent upon its solution. To prevent traffic congestion, all must work together. The Government is doing its part by aiding the railroads. The transportation companies are working hard to transport all shipments received. But are you, Mr. Transfer and Storage Man, doing your bit? All transfer and storage men would be doing a great deal towards the above if they would pack their goods securely and safely and mark their shipments neatly and plainly.

## Facts and Figures

Investigations have shown that 85 per cent of the claims against railroads and transportation companies today are entered on account of lost goods, and only 15 per cent on account of damaged goods. The causes for lost goods are illegible hand-marking, tags becoming detached, labels tearing and getting smeary and unreadable, or chalk and crayon rubbing off. One general freight agent estimated that over \$10,000,000 is lost annually, caused by carelessly and poorly marked shipments. A circular recently issued by the Baltimore & Ohio Railroad said: "Avoid the use of tags when it is possible to otherwise legibly mark packages, as tags are often accidentally detached."

An agent in one of the large cities said in a recent letter to his patrons: "Concerning stenciling, we find that it is an absolute necessity on account of the extremely large amount of heavy shipments we are handling. It is a very easy matter for one box to deface the marks on another box, where there is nothing but the original tag put on. But if the stenciling method is involved, there would be no danger of defacement of shipment. There is one firm that ships goods through this office and has been using the stenciling method for some time, and I have never had cause for complaint regarding lost articles. I attribute this to the method they are using in marking their shipments."

Express companies in some sections of the country now demand that no tags be used on shipments, and it will only be a short time when all will demand it. A freight supplement which went into effect April 1 read: "Each package, bundle or loose piece of freight must be plainly, legibly and durably marked by brush, stencil, marking crayon (not chalk), etc."

## A Few Don'ts

- Don't leave old addresses on boxes when shipping.
- Don't use tags; they often become detached or torn.
- Don't use labels; they become smeary and unreadable.
- Don't hand-mark shipments; addresses are not always plain and legible.
- Don't use chalk; it rubs off.

Of all the methods of addressing or marking shipments, the address appearing on the face of the shipment is the most efficient. Tags are unsatisfactory, as they are too easily torn off, while typewritten addresses are better, but they too become obliterated through scraping and handling. The stencil marked shipments are the best marked, best handled and the quickest delivered. Articles marked in this manner very seldom go astray, as the address stands out boldly and can easily be read in a dim light, such as often prevails at transfer points and in cars.



If all shippers made a practice of applying marks in bold face letters, the congested conditions would be relieved considerably, the assorters and handlers could move freight quicker, as they would not be compelled to try to decipher hand-marked addresses, losing valuable time. There are many peculiar characteristics of the writing of individuals that very often cause shipments to be misrouted, especially where there is a similarity in the names of abbreviated states.

#### The Correct Way of Marking Shipments

One of the safest and most efficient ways to mark shipments is with stencils. Many transfer and storage companies, both large and small, are adopting the stencil method because it is quick, safe and the most legible. A stencil can be cut in less than half a minute on a stencil cutting machine, and with a few strokes of the brush any number of shipments can be marked neatly and plainly. It has been proven that a stencil-marked address can be

read twice as fast as a hand marked one, a tag or a label. Note the comparison between the two illustrations shown on page 15.

Claims don't pay. Everybody loses—the transportation company, the transfer and storage man, and the consignee. Of course the shipper may get his money back, but he does not get anything back for his time and trouble or his dissatisfied customer. When a transfer or storage man can prevent delays, losses and claims by marking shipments in a proper way, why not do so? Start now to mark your shipment the correct way.

Transportation companies are making a special request to have shipments addressed plainly. Some of them are specifying stencil marking as being the most desirable, not only on account of its legibility, but also due to the fact that the address is permanent. The United States Government has also seen the advantage of this method and is now using stencils for marking its shipments, and we believe it would pay every transfer and storage man with a shipping problem to investigate stencil marking.

## Hot Weather Means More Care for Horse

**W**ITH the coming of the hot months, it is important that the big army of transfer and storage men who use horses in their work redouble the care and attention they give their animals. The horse represents the working capital of his owner. His efficiency and length of life depend on his health and comfort.

When horses are at work on a warm day, lift up the collars now and then to cool their shoulders, and wipe off the sweat and dirt. Wipe off the harness marks on the horses when they stop work, and clean the inside of the harness, especially the collars. The salt sweat drying on the skin and harness causes much trouble.

If the skin is wrinkled under the collar, bathe it with witch hazel. If the skin is broken, bathe it with clean, warm water containing a little salt. Fix the collar with padding or otherwise so that it will not touch the sore spot the next day.

Don't stand the horse in the sun, when by moving him across the street or around the corner you can find shade.

Don't put the same load on him when the thermometer is at 90 as you do when it is just above the freezing point.

Don't fail to give him water at short intervals. No matter how hot an animal may be, it can always be allowed a few swallows of water if exercised immediately thereafter.

Don't give the horse whiskey unless advised by a veterinary surgeon.

Don't fail to wash his mouth out.

Don't fail, if he shows signs of exhaustion, to give him half an hour's rest.

Don't fail, if exhaustion continues, to bathe his entire body with water.

Don't fail, in extreme cases, to apply ice to the head and ice water to the body in order to reduce the temperature.

Don't hesitate about employing veterinary aid.

Don't take advice from the man in the crowd who "knows it all" and is always on hand.

## U. S. Describes Safe Storage for Flour

**T**O prevent the losses from spoilage in certain flours and meals, the Food Administration has issued instructions regarding their storage. In view of the importance of breadstuffs to ourselves and the allies at this time, it is essential to reduce careless handling and storage. Flours and meals should be stored in cool, dry, well-ventilated places; warehouses should be whitewashed and swept clean before these products are placed therein; large supplies should not be accumulated.

Care should be taken in storing bags of flours and meals to have sufficient space between the tiers to allow abundant ventilation and to raise the bags sufficiently from the floor to exclude rats, mice, and insects; also to permit cleaning the floors without the necessity of transferring the products from one part of the warehouse to another.

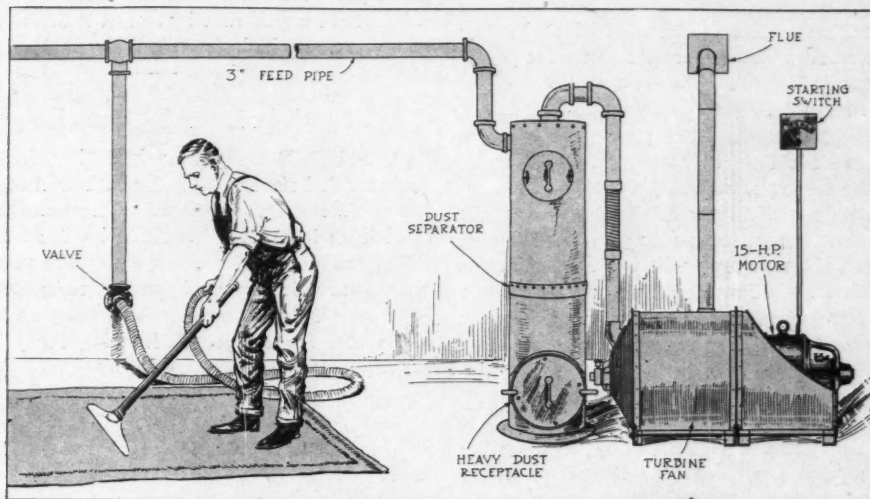
To prevent flours and meals becoming infested with weevils, the outside of bags containing them should be kept clean and swept often. All sweepings from warehouses should be collected and removed or burned, as these contain most of the adult insects, larva and eggs. Sacks containing flours should be kept in good repair, as this will prevent the insects from entering the bags.

Special care should be taken of the following products, and these should be kept moving or be used as soon as practicable, and should not be allowed to accumulate in the warehouse: Bran, shorts, and middlings; corn products containing the outer coating and germ, such as so-called water-ground corn meal, grits, etc.; oats and oat-meals, Graham and whole-wheat flours, rye flour, barley flour, peanut meal, soy-bean meal.



## Storage Man Can Become Carpet Cleaner

With Reasonable Expenditure, Side Line Offers  
Profitable Field for Industry



*This equipment costs approximately \$800, occupies 32 sq. ft. of floor space and can be operated by one man. Two cleaning jobs may be carried on at the same time, carpets, draperies and upholsteries being easily renovated before storing*

**C**ARPETS and rugs should be cleaned before they are placed in storage. Why shouldn't the storage warehouseman do the cleaning?

With labor scarce and wages high, it is more necessary now than at any previous time that the warehouseman undertake as many profitable side lines as his means and the needs of his clientele will permit. The cleaning of carpets, rugs, tapestries, draperies, portieres, etc., is a natural adjunct of the household goods storage business, and, as many warehousemen have proven, it may easily be handled without any large addition to their working forces. Naturally, the larger the equipment, the greater will be the income.

### Storage Man Must Find Need

It is not the purpose of this article to intimate that every storage warehouseman should install a carpet cleaning department. In many cases, it would undoubtedly be a losing investment. If he contemplates such a step, the warehouseman should first determine the need for an activity of this nature in his neighborhood and among his patrons. He will readily see whether his investment would be warranted, and he will also be able to judge the size of the equipment he should install to meet the demands.

At the cost of approximately \$800, a Spencer turbine vacuum machine like the one shown in the accompanying

sketch may be installed. This cost includes all piping, connections, and a 3½ horsepower motor. Either four or five inlet valves for the operation of the suction cleaning tools are fitted to this machine. The power generated in this size equipment, however, provides only for the use of two valves at the same time.

Skilled labor is not necessary to the use of this equipment. Any worker can soon gain the necessary knowledge. Such workers usually receive \$18 or \$20 a week. A charge of ten cents per carpet yard is the minimum rate for this class of work.

### Machine Cleans Six Rugs at Once

For a larger equipment, the case of the Pioneer Fireproof Warehouse in Brooklyn is cited. This house has a Spencer machine with fourteen inlet valves, six of which may be used at one time. The valves are distributed among three of the four floors of the building, thus giving ample room for the handling of six jobs at once. The Pioneer's machine has a capacity of 1,800 carpet yards per day. The cost was approximately \$2,000, including all connections and the 15 horsepower motor.

Any size equipment necessary may be obtained. The fact that the machine is for dry cleaning purposes makes unnecessary the use of skilled labor and facilitates the renovating of carpets, rugs, draperies, furniture, upholstery, and the like.

# Cotton Crop for 1918 Presents Problem

## Banker Declares Close Attention Must Be Given Storing

**W**AREHOUSING of this year's cotton crop in September will present difficult problems unless immediate consideration of the question is given by the warehousemen, according to Albert Breton, vice-president of the Guaranty Trust Co., of New York.

"Consideration should be given the important fact," said Mr. Breton, recently, "that the present indications are for a surplus of cotton in storage 750,000 bales greater than at the same period last year, when the new crop is ready to bale in September. Unless plans are made to relieve this congestion as rapidly as possible, the warehousing of the new crop will present a difficult problem. Throughout the South cotton warehouses are still filled with last year's crop in storage, which has accumulated through the inadequacy of transportation facilities both by land and water.

"Both England and France have large holdings of cotton in American warehouses which they are unable to transport to the other side, although the need for cotton there is increasingly great. Assistance in transporting this supply must be given if their needs are to be met and the American market relieved. An undue financial problem is presented in this great accumulation of raw material awaiting manufacture and the banks cannot be expected to carry two crops of cotton awaiting transportation. It is obvious that the mere physical housing of the crop will present insurmountable difficulties unless the Government consents to take the situation in hand in some manner. There is an obvious need of more public warehouses and a considerable amount of new construction will be required if adequate protection is to be afforded.

"The only apparent relief for the present is the available space which may be left in the private warehouses owned by the cotton merchants or by the gins in the South, but receipts issued by such warehouses are not taken as freely by banks as the ones issued by independent warehouses. Furthermore, the insurance and other expenses are as a rule so heavy as to seriously handicap the carrying of the cotton in warehouses belonging to or leased or controlled by the owner of the cotton. Co-operation with the Railroad Administration of the Government which would insure the rapid movement of as much cotton as possible to New England factories and public warehouses would also afford relief."

## Bush Terminal Earnings

**G**ROSS earnings of \$2,157,210, an increase of \$201,972 for the year, and net earnings of \$1,610,392, an increase of \$108,884, are shown in the annual report of the Bush Terminal Co., for 1917. The profit and loss surplus for the year, after all deductions, was \$984,447, an increase over 1916 of \$44,823. Of this sum \$410,302

was paid in dividends and \$65,603 expended for special advertising, redemption of notes, or transferred to the sinking fund.

Regarding the commandeering in December of the warehouses and piers of Bush Terminal, the report announces that the Government has paid in advance, \$1,000,000 on account of the rental or purchase price, while a commission of five experts appointed by the Secretary of War is now engaged in determining the value of the property in order to fix a rental or a proper purchase price should the Government decide to buy it outright. It is hoped that by July 1 a definite decision will have been reached.

## Work for Return Loads

**T**RANSFER companies handling freight by motor truck between New York, Philadelphia, Wilmington, Del., Baltimore and Washington, are trying to establish an intermediate return loads service. Stops are being made in many cities along the route where merchants are interviewed and arrangements made for handling freight. Other trucks going through the cities bear large placards inviting the patronage of the townspeople.

## Hoover Commends Transfer Men

**F**OOD Administrator Herbert C. Hoover has endorsed the efforts of the transfer men throughout the country in the extension of rural motor express as an aid to food production and distribution. In a letter to the Highways Transport Committee of the Council of National Defense he says:

"The development of the rural motor express idea, in my opinion, is in line of progress and should redound to the benefit of the producer, the consumer and the railroads. This means of transportation should facilitate delivery, conserve labor, conserve foodstuffs and should effect delivery of foods in better condition."

The organization of new rural express lines in the vicinity of cities is being urged through the State councils of defense co-operating with the National Council. Surveys of existing lines show that in nearly every instance there has been a marked increase in the production of perishable foodstuffs as soon as a line is established.

## The Terminal Facilities of Seattle

**T**HAT the terminal facilities of Seattle, Wash., are by far the greatest on the Pacific coast, was recently set forth in a survey completed by the Foreign Trade Bureau of the Chamber of Commerce and the Commercial Club. The summary showed that a fleet of eighty 400-foot ocean ships can be accommodated simultaneously for loading or discharging. The survey, which gives a new idea of Seattle's powerful position as a port, follows:

Spur tracks—Capacity in cars: (a) shipside, 500; (b) landside, 1,100. Mechanical handling equipment—Modern, 3,000 tons lifting capacity. Wharf dimensions—(a) Covered shed area: 2,500,000 square feet; 9,000,000 cubic feet; average floor load capacity, 600 pounds a square



foot, and (b) outside area: 1,000,000 square feet; average floor load capacity, 500 pounds a square foot.

Storage—Capacity in tons for merchandise: Wharf shed, 250,000; warehouse, 250,000; open space, 200,000. Storage capacity in cars: Wharf, 3,000; open space, 1,873. Waterside cold storage—Capacity, 35,000 tons. Waterside fuel facilities—(a) Coal: Storage capacity in cars, 12,000; delivering capacity in tons an hour, 10,000, and (b) oil storage capacity in gallons, 12,500,000; delivering capacity in gallons an hour, 1,000,000. Waterside grain storage—(a) Capacity in tons, 100,000, and (b) delivering capacity in tons: bulk grain, 3,000; sacked grain, 17,500. Drydocks—Capacity, 50,000 tons. Number of 400-foot vessels which can be simultaneously accommodated loading or discharging, eighty.

### New Return Loads Bureaus

THREE new return loads bureaus have been established since the list published in the May issue of TRANSFER & STORAGE was announced. The new bureaus are being operated by the Chambers of Commerce in Washington, D. C., Detroit, Mich., and Cleveland, Ohio. In Buffalo, N. Y., J. E. Pugh has established a bureau in addition to the one maintained by the Chamber of Commerce.

The other bureaus on the list are as follows:

#### Connecticut

Bridgeport.....	Chamber of Commerce
Bristol.....	Chamber of Commerce
Danbury.....	War Bureau or C. of C.
Greenwich.....	War Bureau
Hartford.....	Chamber of Commerce
Manchester.....	War Bureau
Meriden.....	Chamber of Commerce
Middletown.....	War Bureau
New Britain.....	Chamber of Commerce
New Haven.....	War Bureau
New London.....	War Bureau
Norwalk.....	War Bureau
Norwich.....	Chamber of Commerce
Stamford.....	Chamber of Commerce
Waterbury.....	War Bureau

#### New Jersey

Asbury Park.....	Board of Commissioners
Carney.....	State Council of Defense
Dover.....	Chamber of Commerce
Garfield.....	Police Station
Jersey City.....	Chamber of Commerce
Newark.....	Motor Truck Club of N. J.
New Brunswick.....	Home Defense League
Trenton.....	Chamber of Commerce
Millville.....	Maurice River Transportation Co.
Montclair.....	Police Dept.

#### New York

Albany.....	Chamber of Commerce
Buffalo.....	Chamber of Commerce
New York.....	Merchants' Association
New York.....	Van Owners' Association
Rochester.....	Chamber of Commerce
Syracuse.....	Chamber of Commerce

#### Pennsylvania

Philadelphia.....	Chamber of Commerce
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## McAdoo Puts Freight on Cash Basis

### New Order Eliminates Possibility of Preference to Shippers

WILLIAM G. McADOO, Director-General of Railroads, has issued a sweeping order, placing all railroad transportation charges strictly on a cash basis. In making public the text of the order, it was announced the action was taken to make it impossible for railroads to demand the payment of cash by some shippers and extend credit to others.

The following statement has been issued on the authority of C. A. Prouty, Director of the Railroad Administration Division of Public Service and Accounting, for the information of the railroads and the shippers:

"The Director-General is about issuing an order putting the payment of all transportation charges upon a cash basis, and is especially desirous that this shall result in as little inconvenience as possible to the public. The rule should be interpreted in a practical, business way. If, for example, the consignee who is financially responsible is accustomed to send for his freight in the morning and the collection of the freight charge is effected in the afternoon, that should be treated as a cash transaction, so long as the consignee continues to pay his freight charge promptly upon presentation of the freight bill. Similar application of the rule should be made in the collection of a prepaid charge from a shipper. That is to say, payment of such a charge, if made on the day the shipment is forwarded, will be treated as a cash transaction.

"The enforcement of the cash rule will require payment by the shipper and consignee, for the most part without opportunity for the correction of errors in the freight bill, but in all cases where a mistake is obvious or where it is plainly indicated upon the face of the bill, the agent should make the correction before exacting payment.

"The Director-General is also anxious that the public shall understand that the reason for the promulgation of this order is to prevent discrimination between shippers and consignees. The extending of credit in the payment of transportation charges to one person while it is denied to another results in a preference in favor of the person to whom credit is given. While repeated attempts have been made in the past to check this evil, competitive conditions have rendered it impossible to do so. At the present time many shippers and consignees, especially large ones, enjoy with respect to many of their freight bills a credit not only of days but of weeks and sometimes of months. There seems to be no way of dealing with this except to enforce the cash rule. The Director-General further instructs me to say that he has under consideration rules, which will be promulgated in the near future, touching upon the settlement of overcharges and claims for loss and damage, which he believes will result in the prompt and fair disposition of such matters with a minimum of inconvenience to the public."



# Canada's Food Supply Called Ample

## Stocks in Storage Satisfactory to Dominion Official

CANADA has ample stocks of produce in storage to meet its own reasonable requirements and maintain, if not increase, its supplies to the overseas fighting forces, if proper economy is observed, according to R. J. McFall, Acting Commissioner on the Cost of Living Branch of the Canadian Department of Labor.

"At this time, when the Allies are in extreme need of foodstuffs, it is particularly vital to know what stocks Canada has in store," said Mr. McFall in a recent interview. "It is gratifying to find large stocks here, if we also find that they are kept moving. The reports for May 1 show that foods are being kept moving reasonably well, but that there is still room for greater movement, in view of the extraordinary demands at present in Europe.

"Our stocks of butter are low, and have decreased since April. Stocks of eggs are increasing, as it is right they should at this season of the year, when the new crop is coming in. The very low figure in egg holdings on April 1 indicate that the storages were entirely cleared of last year's stock. Cheese has also decreased markedly since last month. In this we see the results of the recent order of the Canada Food Board, causing the sale of unnecessary accumulations and stopping the holding of old stocks of produce over the season of new production.

"Our stocks of beef are larger than a year ago, but they are being moved rapidly. Our stocks of pork are not so large as a year ago, judging by the records of the firms reporting this May and a year ago, but they have increased above last month. Mutton and lamb are in storage in less quantities than usual. Taking the meat situation as a whole, we find there are large stocks, large movement, and an opportunity for a still larger overseas shipment.

"The amounts of food commodities in storage May 1, 1918, were:

"Butter, 1,182,211 pounds; cheese, 3,141,771 pounds; eggs, 3,766,997 dozens; beef (fresh and pickled), 21,592,408 pounds; pork (fresh and pickled), 27,235,400 pounds; bacon, ham and smoked meats, 13,279,961 pounds; mutton and lamb, 1,449,665 pounds; fish, all varieties, 15,534,328 pounds; fowl, all varieties, 1,640,150 pounds."

## A Drive on Grain Elevators

THE Pacific Northwestern States region will make an effort to build this year 400 grain elevators in Washington, Oregon, Idaho and Montana. This has always been a sacked grain region—that is, wheat and other cereals have been marketed in bags instead of by the cheaper bulk method through grain elevators, common in Eastern and Middle Western states. At the recent meeting of the Farmers' Educational and Co-operative Union

of America at Spokane, a committee on bulk handling of grain made an elaborate report, showing that bags may not be available this year at any price, and urging state agricultural colleges, county demonstration agents, bankers, railroads, business men, warehousemen and farmers to combine on some definite program for getting space or for the building of elevators. Co-operative companies of farmers can build elevators in some cases and business men will be able to finance elevators in others. Emphasis was put upon standard construction under competent engineering supervision, and the provision of ample facilities, with grain-cleaning machinery and other modern devices.

## Truck and Trailer Hauls Pipe

THE city of Los Angeles, one of the greatest motor trucking centers in the United States, has witnessed many forceful demonstrations of motor truck efficiency, and there is one that lingers as a strong example of what can be expected of heavy duty machines.

When a great number of 23½-foot sections of 12-inch pipe had to be moved from Los Angeles into the San Fernando Valley to points far removed from railroads, the transportation problems proved perplexing until the motor truck entered the situation. A test was made with a five-ton Pierce-Arrow truck and a trailer of five tons capacity, owned by the Advance Truck Co. Fifty-six sections of the pipe, weighing a total of twelve tons, were loaded upon the Pierce-Arrow and trailer, and it fairly raced away with its cumbersome load. The time, money and labor saved by motor truck transportation in this one big project alone ran into great sums.

## Baltimore to Have Huge Terminals

THE War Department is to erect at Baltimore huge concrete steamship terminals to cost approximately \$15,000,000, according to a recent announcement by Representative J. Charles Linthicum.

The statement was also made that it is the intention of the Quartermaster's Department to have in storage in the Atlantic ports, sufficient supplies to care for the army for thirty days, and that 15 per cent of this amount would be stored in Baltimore. The digging of a 40-foot channel is another Government activity, Mr. Linthicum said, and will soon be undertaken in order to accommodate the big vessels recently authorized by Congress.

## Freight Rate Increased

FREIGHT rate increases of 25 per cent in most instances will go into effect next month on all railroads under Federal control, according to an announcement made by Director General of Railroads William G. McAdoo.

The increases in freight and passenger rates were frankly declared to be necessitated by the many increases in the cost of operation. Nearly \$900,000,000 more in revenue must be provided for the roads this year over last

if operating expenses are to be met and the guaranteed return to the owners paid.

The increased freight rates, it is said, may be looked on as a new form of war taxation, and not merely an attempt to conceal any inefficiency in the management of the properties. The government today is transporting more freight over the roads than ever before. With the new rates will come the doing away with all lower interstate freight and passenger rates. Many changes and readjustments will be made by the Railroad Administration, either on its own initiative after receiving suggestions from shippers and state or local authorities, or by order of the Interstate Commerce Commission, which has power to review and modify the schedules.

### Philadelphia Wants More

THE apportionment by Acting Quartermaster General George W. Goethals of overseas army freight between the various Atlantic and Gulf ports has not given entire satisfaction to some of the cities involved. Philadelphia, for example, thinks its percentage should have been larger.

The allotment fixed by General Goethals is as follows: New York, 60 per cent; Baltimore, 10 per cent; Norfolk, 10 per cent; Boston, 5 per cent; Philadelphia, 5 per cent; Charleston, 5 per cent; New Orleans, 5 per cent.

### A Little Kink That Moved Freight

CONSIDERABLE trouble was experienced in Youngstown, Ohio, with delay in clearing incoming freight and express shipments, due to tardy delivery of postal card notices sent consignees by railroad and express companies. That was based, in turn, upon congestion in the post office. The Youngstown Chamber of Commerce Traffic Bureau advised, upon investigation, that consignees be notified by drop letter, instead of postal card, to secure quicker postal delivery. It is suggested by *The Traffic World* that freight and express congestion in other places might be reduced in the same way.

### Motor Trucks Make Record

THE hauling of 27,000,000 feet of lumber in three months' time by motor trucks was one of the notable achievements in the building of the United States Army Cantonment of Camp Funston, Kansas, which is the largest camp in America. Almost every day several of the machines made trips to Manhattan Junction City, Topeka, and other points twenty to sixty miles distant for the purpose of bringing to the camp some much needed materials or to unload stalled freight cars in order that there might be no delay in the progress of the work. Frequently these trips were made at night. Over \$3,000,000 in currency in wages for the workmen was hauled by the trucks under heavy guard from the banks in Junction City to the camp. When the troops began pouring in, the work of the trucks was diverted from the hauling of construction materials to transporting foodstuffs, clothing, equipment and supplies for the regimental depots and camp exchanges.

## Huge Army Depot for Brooklyn

### U. S. Will Spend \$40,000,000 on Warehouses and Piers

WHAT will undoubtedly be the last word in warehouses is to be built in South Brooklyn, N. Y., when the United States government begins the construction of a new army supply base that will be the largest building in the world. Contracts for construction awarded by the War Department to the Turner Construction Co., of New York, call for the expenditure of \$40,000,000 for the warehouses and three double-deck, concrete, wood and steel piers.

According to the plans, there will be 6,000,000 square feet of fireproof floor space under one roof, the building to be approximately 1,000 feet square and from eight to nine stories high. When completed, the structure will cover fifty city blocks. The three double-deck piers are to be 1,300 feet long and 150 feet wide.

A one-story lighterage pier, 1,350 feet long and 75 feet wide, is also to be built. These piers will be longer than any pier existing in New York harbor at present and will accommodate any vessel afloat. Approximately 13 miles of railroad track will be installed, and hundreds of tractors and locomotives will be utilized to serve the supply base. One hundred and fifty elevators will handle the 1,000,000 tons of goods which will eventually be stored there. There will be facilities for loading twelve 8,000-ton ships a day.

Every kind of article used by an army at war will be stocked in the building, including airplanes. Seven thousand men will be employed in construction, and the contractors expect to give the government partial use of the structure by the end of this year, and the entire project will be completed by next spring.

Government warehouses and terminals costing \$25,000,000 are to be constructed at North Charleston, S. C. The development will include a system of steel and concrete piers and warehouses and large ammunition depots. Other operations include the deepening of the channel to 40 feet at low water from the Charleston Navy Yard to the sea and the building of a \$4,000,000 dry dock at the Navy Yard.

### Coming Events

THE following conventions of interest to the transfer and storage industry are scheduled for the next two months:

Central Warehousemen's Club, St. Paul Hotel, St. Paul, Minn., June 4 and 5.

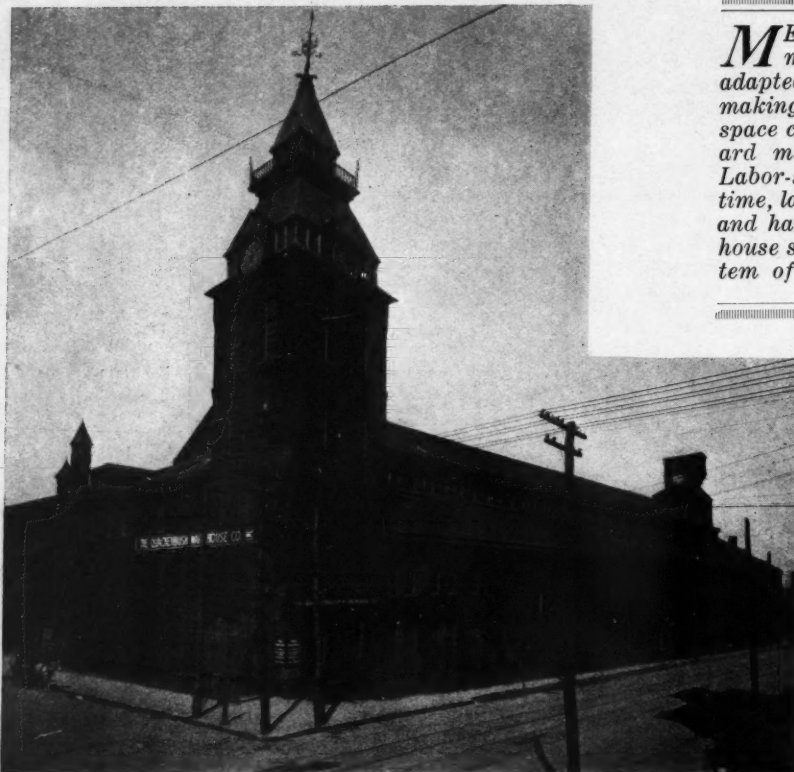
National Team and Motor Truck Owners' Association, Breakers Hotel, Atlantic City, N. J., June 17, 18 and 19.

Illinois Furniture Warehousemen's Association, Hotel Schwartz, Elkhart Lake, Wis., June 21, 22, 23, 24 and 25.

New York Furniture Warehousemen's Association, Hotel Monterey, Asbury Park, N. J., July 19, 20, 21 and 22.



## How to Pile Goods Economically



**M**ERCHANDISE warehousemen can use buildings not adapted for storage purposes by making a few alterations. More space can be utilized if some standard method in stacking is used. Labor-saving devices will reduce time, labor and expense for storing and handling goods. Every warehouse should have some simple system of filing orders, reports, etc.

The Quackenbush company's main warehouse, recently purchased for \$100,000, is now being equipped with a second floor which will double the storage capacity of the building. It will also be equipped with elevators, spiral chutes, and hatches to handle the goods between the first and second floors. The alterations when completed will cost approximately \$100,000, making a total investment of \$200,000 for the warehouse.

**O**NE of the principal factors in the mercantile storage business at the present time is the best method for the warehouseman to use so that he can give his customers efficient service and at the same time make a fair profit on his investment. This can only be done if the warehouseman makes a study of his needs, thereby knowing in what particular branch there are defects that should be remedied. These defects may be many; the building may be old and not constructed for storage purposes. Other defects may be in the handling and stacking of merchandise or in the method of checking or keeping records. In most cases, every one of these defects can be eliminated and efficiency gained by a few alterations in the construction of the building, adopting labor saving devices and by employing a simple system of recording and checking similar to that used by the Quackenbush Warehouse Co., Scranton, Pa.

### Made Study of Warehouse Business

The officers of the Quackenbush company have always made a study of the warehouse business from practically every angle. They have studied the most efficient method of checking and keeping records; the best and most economical method of storing and handling merchandise; also the fundamental principles of how to utilize the most space in an old building not adapted for storage purposes.

The Quackenbush company operates three warehouses, the largest being a four-story rectangular building 102 by 436 feet, with railroad spurs running into the center and at one end, giving it a total capacity of five freight cars.

### Building Altered for Storage Purpose

While the building is centrally located and very large, there is an enormous amount of lost space, because, when it was constructed it was built especially for a machine shop and not a warehouse. As stated, it is four stories, but no use has been made of any of the space above the first floor and a small balcony on the second floor, because the whole inside is hollow between the first floor and the roof. The building was constructed this way so that there would be enough overhead room to install I-beam and overhead trolleys for moving heavy machinery to and from the railroad cars to different parts of the structure.

Many warehousemen will say that it would not be good judgment for any warehouseman to purchase or lease such a building for storage. Probably this is true, but the company needed space and it did not wish to build at that time. However, the Quackenbush company purchased the building for \$100,000, but it did not move in with the intention of always having such a great amount of lost space. The officers made a study of how they could



obtain the use of the greatest amount of space with the least expense. This subject was gone into thoroughly and at present not only have plans been laid for the handling and stacking of merchandise in a systematic and economical way, but a large gang is working to partly remedy the defect in construction. The company is constructing a second floor, the ceiling of which will be 19 feet from the first floor, or level with that of the balcony ceiling. The second floor will be served with one 5-ton and two 2-ton elevators. There will also be a number of hatchways between the first and second floors where merchandise can be delivered from the first to the second floor by portable conveying machines, making delivery at the piles where goods are to be stored. Spiral chutes will handle goods being transported down from the second floor to the freight cars, teams or trucks.

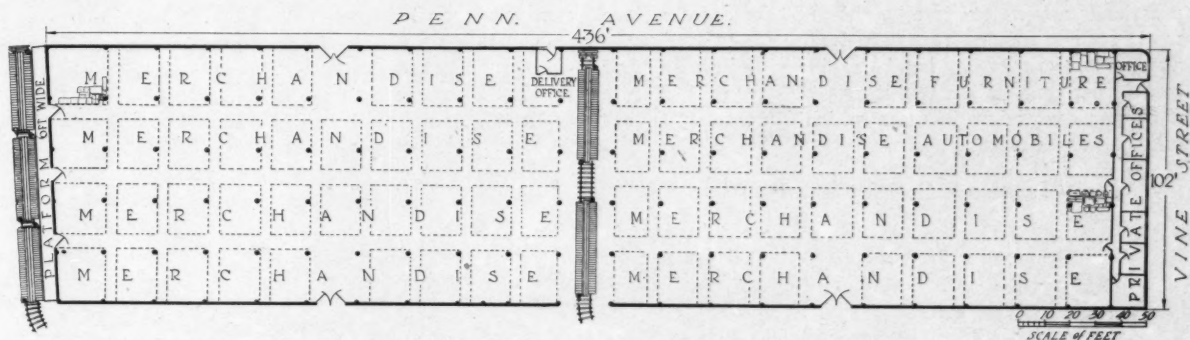
#### Alterations Double Storage Space

These alterations and improvements will cost \$100,000, making a total investment of \$200,000, including the purchase of the building. When the alterations are completed, the company will have a capacity of 90,000 square feet, just double its present capacity.

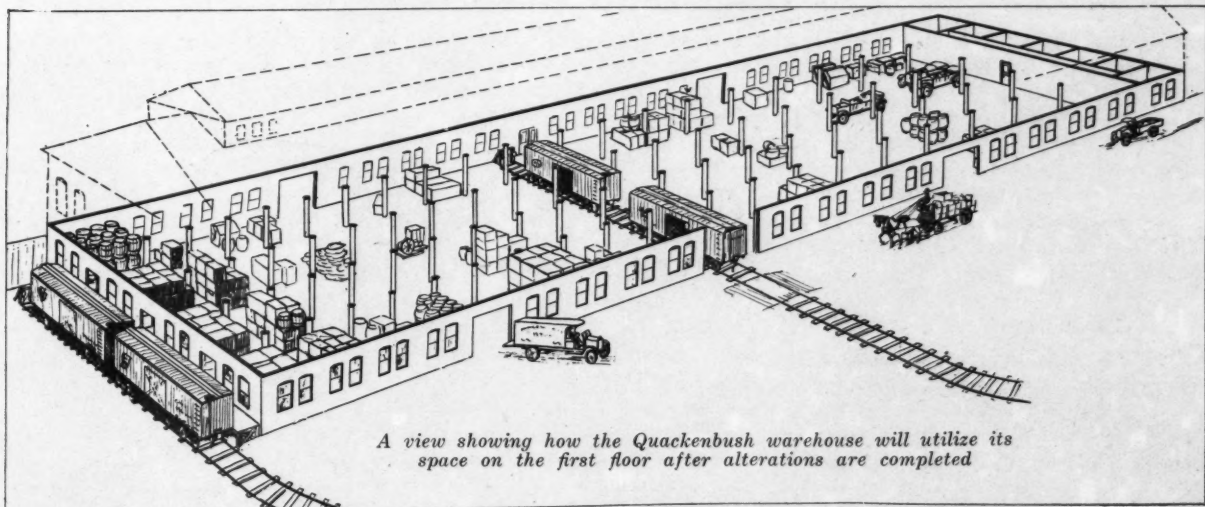
The system the company uses in its smaller warehouses so that it may utilize all of its storage space is being installed in its large warehouse, as shown by drawing on

pages 23 and 24. The system is as follows: All goods are stacked so that there are 6-foot aisles every 20 feet running the full length of the building, with 4-foot cross aisles every 20 feet. When a number of different kinds of goods are piled in the 20-foot square, they are stacked in tiers from one aisle to the aisle opposite. By doing this, goods in any tier can be removed without handling goods in other tiers. Another point that is of advantage when piling goods this way is that after half of the goods in one tier have been removed the men can go to the aisle at the other side of the tier and begin removing the goods from that aisle. This leaves one tier open halfway so that other men can pile new goods being brought into storage in that tier. In short, by piling merchandise this way, one gang of men can be removing merchandise while another gang can be piling goods in the same tier at the same time.

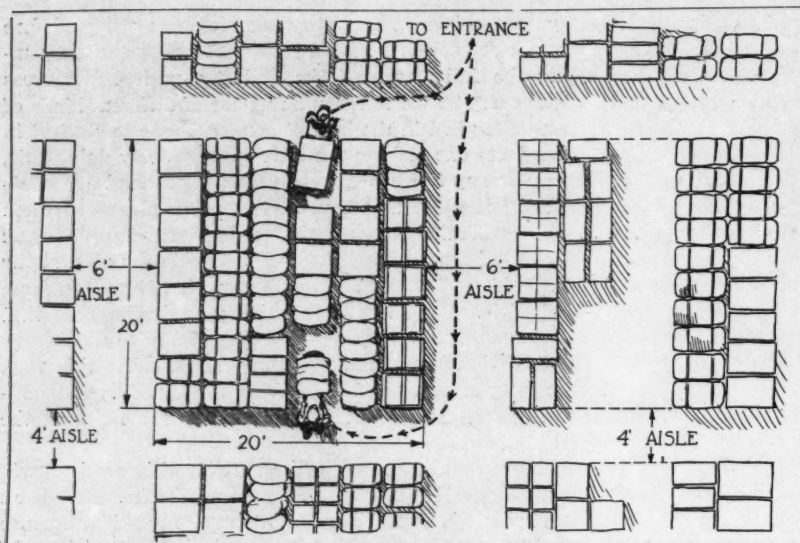
Many warehousemen will say that this method will cause congestion and that the men will be in each other's way, but it is impossible to have any congestion, because the two gangs are working in entirely different aisles. Of course, this can't be done when goods are stacked up against the wall, but if each lot is kept in a separate tier it would not be necessary to have men wasting an hour or two removing goods that are in the front so that they can get to goods that are piled against the wall.



A typical floor plan showing how the Quackenbush company will stack goods after alterations are completed. This system of stacking is followed in all warehouses operated by that company



A view showing how the Quackenbush warehouse will utilize its space on the first floor after alterations are completed



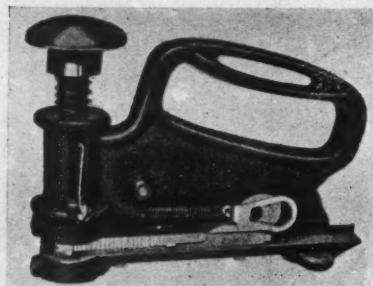
*By following the above method of piling goods two gangs can be removing and piling goods in the same tier and at the same time without congestion*

The Quackenbush company uses practically every labor saving device that is adaptable to its business that is on the market. For the piling of goods a Brown portable elevator is used that will stack sacks, bales and boxes of practically any weight to a height of 30 feet. On certain work, such as handling from 10 to 100 carloads of package goods, the company has been able to reduce its labor cost 40 per cent and its tonnage cost 30 per cent, despite a 50 per cent labor increase which has been put into effect since purchasing the machine.

#### Increases Freight Handling

By using this machine the company has been able to increase its number of freight cars handled per day by about 40 per cent. This increase means that if the warehouse previously handled 100 freight cars per day before the machine was installed, it now handles 140 cars in the same length of time. Before the elevator was installed it cost approximately 35 cents per ton to pile 100-pound bags of feed, which can now be piled for 17 cents per ton. Another feature of the portable elevator is that the overhead space is now being used to advantage, a thing that could not be done economically under the old method of piling.

Another device, the automatic tag tacker, tacks tags on boxes, crates, barrels, etc. The machine holds fifty



*On the left is an automatic tacking machine which holds fifty staples for tacking labels on boxes, crates, etc. With this machine a man can do three times the work of a man with an ordinary hammer and tacks*



*The Signode strapping tools above are used in strapping crates, boxes, bales, etc.*

staples and with it one man can do the work of three with the ordinary hammer and tacks. The advantage of this machine is that when you pick up the tacker you have picked up the tacks at the same time. It also relieves the lost time of the men trying to drive the tacks in straight or hitting their fingers, as is often the case when using a hammer with small tacks. Another advantage is that the tags are tacked flat against the surface, which is not always the case when using the hammer-driven tacks. The saving of time may be only a matter of a few minutes each time the tacker is used, but this amounts to considerable in the course of a year.

The Signode strapping system consists of encircling a bale or crate with a metal strap, drawing the strap tight and interlocking the overlapping strap ends within a metal sleeve in such a manner that the joint has a greater tensile strength than the strap itself. By this method of strapping, not only are nails, rivets and buckles entirely eliminated, but it enables the company to make a good profit on its strapping, and at the same time give its customers a better job at less money than under the old method of hand-nailed strapping. Another advantage is when a carload of boxes or cartons is being unloaded and one is found that is broken open, the men immediately recover it in a few seconds' time. This saves the time of the men and improves the appearance of the warehouse by not having a lot of broken packages lying around until they are recovered. This also prevents a large amount of petty pilfering, as is sometimes the case when goods are left open.

#### Device for Reconditioning Goods

The big advantage of the Hunter's lightning sifter, a device used by the Quackenbush company, is that all flour which is reconditioned in the warehouse is sifted before going into the new sacks. This has reduced the number of complaints usually sent to the warehouseman regarding dirty flour. By always reconditioning any sack of flour as soon as it is found, the company has been able to



reduce the loss by rats to a very small fraction of what it was prior to the use of the sifting machine. While the goods reconditioned from the freight cars do not show any additional profit, it does permit the company to give its customers better service by having their goods immediately reconditioned and ready for delivery at any time. Every one of the devices described has not only saved time and labor, but has paid for itself many times over since being purchased.

### System of Keeping Records

The Quackenbush company's system of keeping records is also interesting, because its records are such that the main office can tell at the beginning of each day the amount of goods received and delivered to and from the warehouse, also the hours the men worked on each particular job and the amount charged to that job. The forms for this record are made out by the various warehouse foremen at the end of each day and forwarded to the main office so that they may be had the first thing the following morning.

Another feature of the company's system of keeping records is a special filing rack with seven separate files which are installed in each of the company's warehouses. File 1 is used for copies of orders that have been sent to the main office. File 2 is used when there are any special instructions which have been sent with the orders to the warehouse. On File 3 are placed the completed orders for the day. File 4 is used to keep a record of special instructions which are always to be followed regarding that particular customer's orders. File 5 is used for orders that have been partly filled and where



*A Brown electric portable elevator moving bags of flour from a freight car into the Quackenbush warehouse*

there is another portion to be filled before the order is completed. Orders that have been received over the telephone are placed on File 6. On File 7 a record is kept of what the different trucking companies are doing for the Quackenbush company, also the amount of goods on each truck at that particular moment.

With a system of this kind, it would not take very long to locate any record, because, if the system is followed, there is no chance for anything to be mislaid or lost. Besides, a man having no knowledge of how the records are kept could step into the office and within a few seconds familiarize himself with practically every detail. Many warehousemen would do well to install a similar system. All that is necessary is a few files, and these can be purchased at a few cents each. After installing this simple system, the warehousemen will be wondering why they always followed the old system of mixing all orders and records, and why they did not install a system of this kind before.

## Store Door Delivery in All Cities

ADVICES from Washington indicate that store door delivery is to be adopted throughout the United States as a war measure. The plan, it is now generally conceded, will go far toward relieving freight congestion at terminals and expediting the loading and unloading of freight cars.

If Washington's intimations are correct, it will not be long before every city in the United States falls in line with the store door delivery plan. New York, according to present arrangements, is to give the plan a try-out. With whatever modifications are found necessary, it will be installed as rapidly as possible in other cities and towns.

[illegible]

*The daily report made up by the various warehouse foremen and sent to the main office at the end of each day, is self-explanatory*



# A Simple Accounting System Where Rapidity Will Not Sacrifice Accuracy

## Part III

**S**PEED and accuracy are the two most important factors entering into the successful transaction of modern business. The system that provides for the maximum of each of these factors is without question the system calculated to advance to the utmost the business to which it is applied.

In the following article, the third and last of a series describing a simple accounting system for cotton warehouses, much will be found that is applicable to the warehouse industry in general. The authors and originators of the system are Roy I. Newton, Assistant in Warehouse Investigation, and John R. Humphrey, Investigator in Markets Business, of the United States Department of Agriculture.

The final steps of the system, including the keeping of the cash journal, the general ledger and the use of the cash and sale tickets, etc., are herewith described by the authors to whom TRANSFER & STORAGE is indebted for the article.

The cash journal, Figs. 9 and 9A, is provided for the purpose of recording the charges and credits which are later to be posted to the various accounts in the ledger. This form is used as a double page, the charges being in columns to the left of "Items" column and the credits in columns to the right. The debit columns of this form are designated as follows:

Folio.	General ledger.	Grading.
Cash.	Accounts receivable.	Weighing.
Bank deposits.	Miscellaneous expenses.	Insurance.

In the "cash" column are recorded all the receipts of cash as they occur. The total is deposited when convenient and entered in the "bank deposits" column in the exact amount of the deposits made. At the end of the month the "bank deposits" column will furnish an itemized statement of the deposits and will give a record of the total receipts for the period. The deposits plus the cash balance from the previous month, which should be entered at the head of the "bank deposits" column, constitute the total debit to cash for the month. The most satisfactory method is to require a statement of account from the bank at the end of each month and to reconcile the cash to that statement.

When it is necessary to

pay small items of expense in cash, a check should be drawn to "petty cash" in order to establish a fund out of which such payments can be made. This amount should be charged to "petty cash" account in the ledger. At the end of the month the total amount of such expenditures should be credited to "petty cash," and be charged to the proper expense accounts. At the beginning of the next month the fund can be renewed by drawing a check to "petty cash" for the amount of the previous month's expenditures.

### Keep a General Ledger

All entries of general accounts not classified under separate headings should be carried in the "general ledger" column and should be posted to their respective accounts in the ledger from that column. Charges to customers for services or material should be entered in the "accounts receivable" column and be posted to the customers' accounts in the ledger.

Under "Miscellaneous expenses" should be entered all items not otherwise classified. In order that the warehouse may know its position in regard to weighing, grading, and insurance, these items are carried under separate headings and the totals are posted to these accounts at the end of each month. The credit columns are designated as follows:

Folio.	Accounts receivable.	Insurance.
Check No.	Weighing.	Storage.
Bank withdrawals.	Grading.	Miscellaneous.
General ledger.		

All checks issued should be listed by their numbers in the "check no." column and the amounts entered in the

"bank withdrawals" column. The difference between the totals of the "bank deposits" column and the "bank withdrawals" column is the available balance of cash in bank. The "general ledger" column is used for the purpose of crediting the accounts debited through the "general ledger" debit column.

All payments on accounts receivable are entered in the "accounts receivable" column and from there posted to the credit of the proper individual accounts in the ledger. The columns headed "weighing," "grading," "storage," and "insurance" receive credits to

### Main Points of New Warehouse Accounting Plan

The consecutively numbered tag, supplemented with the owner's private mark, is the best method of identifying the goods.

All warehouse receipts should be bound in book form, preferably 100 to the book, and arranged so as to allow the making of a carbon copy.

The individual account record shows the exact status of each customer's account from the moment the goods are stored until they are removed from the warehouse.

The location sheet shows the position of any goods stored and facilitates finding them when wanted.

The turn-out order is a signed authorization to the outside man to turn out and deliver certain goods from the warehouse.

The daily report is a record which is given the warehouse manager each morning, showing the goods received, goods turned out, insurance carried on goods for that particular day, labor for the day, cash receipts, cash disbursements, etc.

[illegible]

*Figs. 9 and 9A show samples of cash journal pages. This journal is provided for the purpose of recording the charges and credits which are later to be posted to the various accounts in the ledger*

these accounts, the totals for the month or other period being posted to the respective accounts in the ledger.

Miscellaneous credits are entered in and posted from the "miscellaneous" column, and sales of material can be credited in the blank columns at the right under their appropriate headings. The monthly totals of these columns are then posted to their respective accounts in the ledger. The size of this form should be 11 by 14 in. with  $\frac{1}{4}$ -in. ruling.

### The Cash and Sale Tickets

All expenditures of petty cash should be recorded on "cash disbursement" tickets, Fig. 10, which should be kept as petty cash vouchers. All receipts of money other than checks should be recorded upon a "cash receipt" ticket (Fig. No. 11). The practice of receiving scrip or coin without making a record of the transaction at the time of receipt often leads to discrepancies which are difficult to account for later.

In warehouses handling supplies, all sales should be recorded on duplicate sale tickets, the originals being given to the customers and the duplicates retained for record in the books of account.

These sale tickets are similar to those used in any merchandising business and can be either printed specially or secured in stock form. Fig. 12 is a form of sale ticket suitable for general use.

### Operation of the System

In order to explain fully the operation of the system it may be well to follow the various steps as they occur in the process of warehousing a lot of cotton.

When the cotton arrives at the warehouse the weigher and grader first tags the bales with consecutively-numbered tags in the series then current. He then weighs, grades, and staples each bale, examines it for moisture or damage, and records the data upon the "certificate of

inspection," making an original and one carbon copy. Both original and copy are then sent to the office, where the receipt is written from the data on the certificate. The original certificate is attached to the receipt only in case the form of receipt shown in Fig. 3B is used. This form was previously shown in the April issue. If any of the other forms of receipt is issued the original certificate may be given to the storer. In every case the carbon copy of the certificate of inspection is filed in the consecutive order of the numbers on the tags, after there has been noted upon it the numbers of the receipts covering the cotton listed on it.

The receipt is now issued, and a full entry of the details required is posted to the "consecutive tag record" from the carbon copy of the receipt, against the corresponding tag numbers. Then the "individual account record" is posted from the carbon copy of the receipt, and given its alphabetical position in the binder. The amounts of the various fixed charges are posted in their respective columns.

### Cotton Recorded in Location Book

In the meantime the cotton has been removed to its proper place in the warehouse and its location has been recorded in the location book. At some time during the day this book is taken to the office so that a proper entry of the location of the cotton may be made in the column provided for it in the consecutive tag record.

The operation is now completed except for the making of the daily report and the monthly determination of the amount earned on the lot of cotton while in storage.

Later, when the receipt is presented for delivery of the cotton, and it is found that the receipt is properly indorsed, and that a tender of all charges and advances has been made, the out-turn order is made out and delivered to the "outside" man. By referring to the location book the cotton is readily located. The bales are checked out





# Mono-Rail Freight Handler Speeds Work

## Telpher Machine May Be Adapted to Uses of Warehouses Having Large Overhead Space

By Russell B. Kern\*

ONE of the devices extensively used in freight terminals and warehouses for the mechanical handling of all kinds of packages, castings, machinery and freight is the electrically operated overhead crane of the mono-rail and telpher types. A good conception of these devices may be had from the accompanying illustrations, which show the loaded freight-carrying cars suspended from and running along a single rail, as its name indicates. Fig. 4 shows how the car is raised and lowered to be loaded or unloaded.

As stated above, there are two types of mono-rail cranes in extensive use in handling freight and merchandise in warehouses and terminals. One of them is called the telpher machine, Fig. 3, and the other is known as the lower flange mono-rail crane. These two types are distinguished principally by the very different forms of trolley trucks employed. The telpher machine runs on a T-rail mounted on the top flange of an I-beam stringer, whereas the lower flange mono-rail hoist is equipped with

\*EDITOR'S NOTE.—The author of this article, Russell B. Kern, is chief engineer of the Link-Belt Co., and may be cited as an authority on the subject of handling freight. The device described herein is of interest to warehousemen seeking efficient methods of moving merchandise within large plants.



Fig. 1—Dodge telpher machine conveying load of freight distance of 600 feet to warehouse and alongside railroad cars

trolleys that run directly on the lower flange of an I-beam.

### The Telpher System

The telpher, with its over-running trolley trucks, lends itself particularly to safe and smooth running on both straight line runs and on curves with minimum friction and with highest possible speeds. Trolley speeds up to 1500 feet per minute are entirely safe and practicable, thus showing that the telpher is an ideal machine to use when long distances are to be traversed, as between dock and warehouse and when high operating speeds are essential in order to handle a given large tonnage per hour or day. Aside from that, the machine is ruggedly constructed and built to suit individual requirements as to operating speeds and handling capacity, being designed for the most severe and continuous usage.

The telpher is regularly made up of two trolley trucks having flexibly suspended from them a structural steel frame carrying the operator's cab and some form of hoisting machine. Fig. 4 shows a Dodge telpher manufactured by the Link-Belt Co., of Chicago and Philadelphia, that has been in service for 13 years, handling miscellaneous package freight on a steamship pier. This machine with one operator does the work that formerly required the services of sixteen men with hand trucks. The illustration mentioned shows the telpher in the act of elevating a platform carrying a load of about three tons of bagged sugar from port of steamship, while Fig. 1 illustrates how this load is afterwards conveyed a distance of 600 feet to the warehouse and alongside railroad cars. It is not difficult to judge what effect this

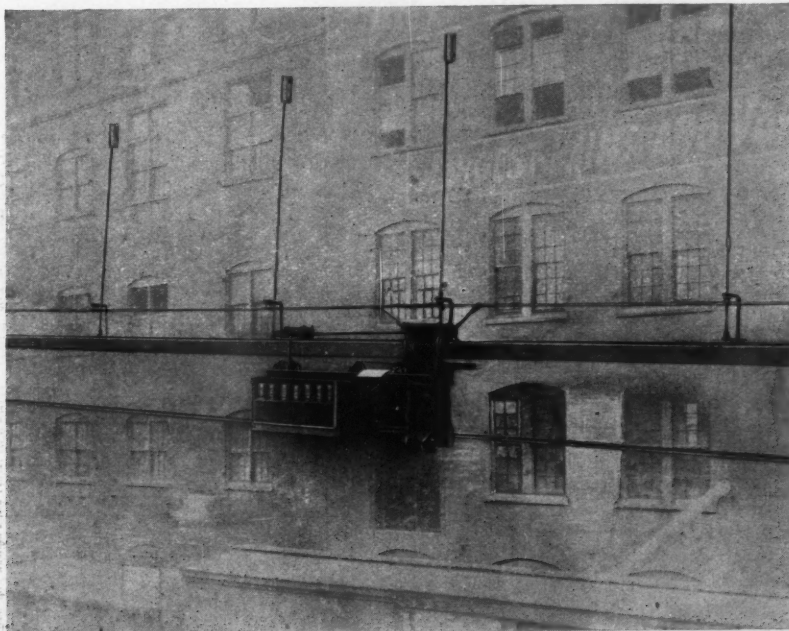


Fig. 2—Installation where local conditions prevented transportation of freight within the building



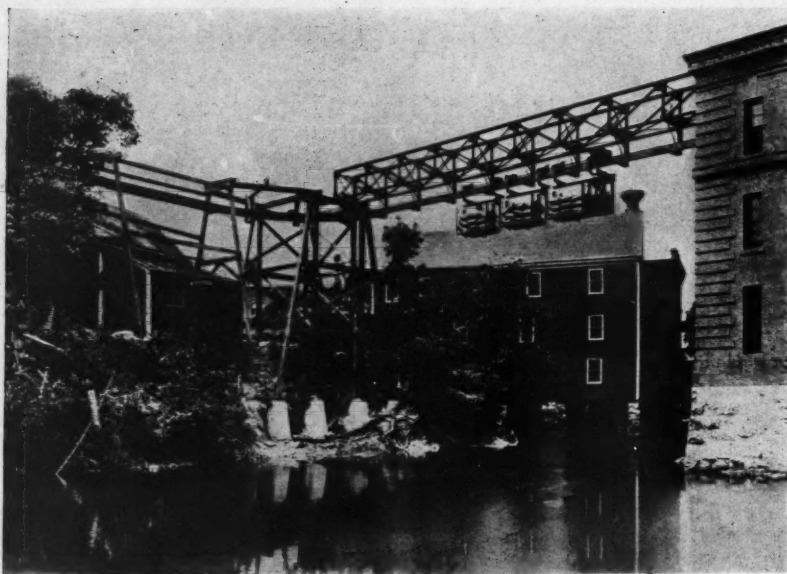


Fig. 3—Telpher train carrying three trucks, each loaded with one ton of bagged cocoa beans

installation of telpherage had on the handling capacity and cost per ton of material handled, as compared with the old way.

#### Telpher Line 700 Feet Long

Fig. 3 shows a telpher train carrying three trucks, each loaded with one ton of bagged cocoa beans. The telpher line connects a storage warehouse alongside the railroad with a mill 700 feet distant and supplies the daily requirements of the mill. Part of the line is built along the side of a precipitous cliff and then crosses a river on a steel bridge entering the third story of the mill. The train travels 600 feet a minute and is 50 feet above ground. Previously, to do the same work, several teams were required, and the distance between the warehouse and the mill by wagon road was about one-half mile. With the telpher machine one man now does all the work which formerly took several teams to accomplish.

Fig. 2 illustrates an installation where, because of local conditions, transportation of the material could not be effected inside the building, while the street offered an obstacle to outdoor transfer. By suspending the telpher track from the wall outside and running it on a 5 per cent grade in order to handle the material between two floors, all difficulty was overcome. It is desirable to avoid grades in mono-rail tracks whenever possible, but this particular instance of departure shows what can be done when absolutely necessary, as well as the readiness with which this form of equipment adapts itself to unusual existing conditions.

#### The Mono-Rail Crane

The lower-flange mono-rail crane or hoist is in even greater use than the telpher, which is explainable by the fact that the lower flange hoist is built by various manufacturers in lifting capacities ranging anywhere between  $\frac{1}{4}$  ton to perhaps 10 tons. It is furthermore furnished with various styles of trolleys, in so far as their method of operation is concerned, and the controllers arranged with cords for operation by man from floor or ground,

or else these controllers are placed in a trailing cage and the operator rides along.

From the above description of the operation of a mono-rail freight handling system, it will be seen that such a system has certain distinct advantages. The writer recognizes, however, that when the problem is to serve a rectangular floor space and cover practically every square foot of that space, the double-track overhead crane better answers the purpose, as it provides both longitudinal and transverse traveling motion.

Among the advantages of the mono-rail system are the following:

- (1) The entire system is overhead, and therefore does not occupy any valuable floor space.
- (2) No floor congestion can result due to its use.
- (3) It is not hindered by driveways, creeks, railroads, streets, climatic or unusual local conditions, which often form obstructions in the path of surface systems of handling and either entirely prevent the use of a surface system or else necessitate an expensive construction.
- (4) The machine employed will travel around curves, over turntables, through switches, or by means of an underhung single-beam transfer crane may be transferred to any one of a number of parallel branch tracks.

#### Solution of Freight Handling Problems

It will readily be seen from the foregoing description and details of operation that in the mono-rail freight handling system lies the solution to many freight handling problems with a consequent increased handling capacity and reduction in cost. It can also be said that the cost has been reduced for handling freight in every one of the piers, warehouses, etc., shown in the accompanying illustration.

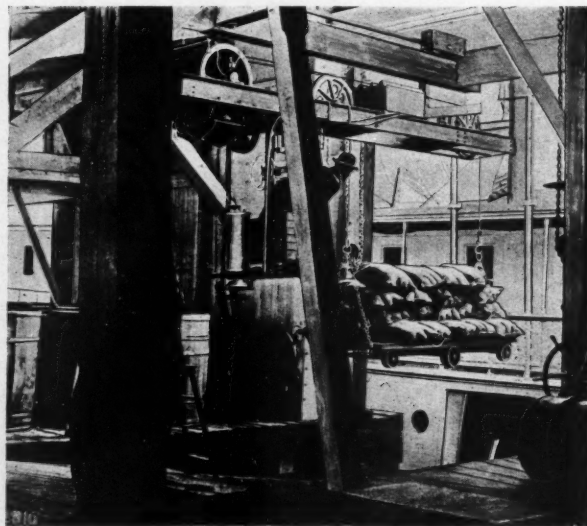


Fig. 4—Dodge telpher, in service 13 years, handling miscellaneous package freight on pier

## Letters From Readers

**T**HE purpose of this "Letters from Readers" Department of TRANSFER & STORAGE is to serve as an open forum in which questions of interest and importance in the transfer and storage business may be discussed by the readers of the paper. It is intended also to serve as a source of information to those who desire to know about any phase of the transfer and storage business. If there is any particular problem facing you, write to TRANSFER & STORAGE for the information you desire, and if this information is not in the office, the editors will do their utmost to obtain it for you.

### War Tax on Long Distance Moving

Editor, TRANSFER & STORAGE: On account of the uncertainty that has existed regarding the collection of war taxes on long-distance moving, I am enclosing herewith copy of ruling furnished me by the Internal Revenue Department. It would seem to indicate that bona-fide removals of household goods between cities are not subject to tax.—F. J. MCG.

From the Collector of Internal Revenue at Newark, N. J.:

"The only available information I have in regard to furniture moving is the decision handed down by Deputy Commissioner B. C. Keith as follows:

"The business of a furniture moving company which transports household furniture by motor trucks from one town to another, as in the case of a person changing his residence, such business not being in competition with carriers by rail or water is not subject to the tax."

Following is a copy of a letter sent to TRANSFER & STORAGE by Deputy Revenue Commissioner B. C. Keith, Washington, D. C.:

"You are advised that, if a transfer company operating motor trucks holds itself out by the issuance of tariffs or rates recognized by controlling Federal bodies as operating over an established route, whether said line parallels the line of a rail carrier or not, its transportation would come within the taxable scope of Section 500 of the War Tax Law. The operation of transfer companies in and about a city or to the limits of a city, not over established routes, would not be subject to the tax."

### Would Like to Exchange Ideas

Editor, TRANSFER & STORAGE: We recently read an article in your March issue in which you state that the Team Owners' Bureau of Transportation of New Orleans, La., are paying the rate of \$1 per bushel for oats. In this vicinity we are paying between \$2.65 and \$3.15 for a 75-pound bag of oats, and they are not good even at that high price. We are now paying \$3 per 100 pounds for bran; \$5.40 per 100 pounds for corn, and \$40 a ton for hay. At one time we operated sixty head of horses, but conditions have changed so in the last few years that it has been almost impossible to make a profit by operating teams. We have replaced most all of our teams with motor trucks, which we find are best adapted to our business. We do all kinds of rigging, hoisting and all kinds of hauling, and we find we can depend upon the truck, whereas the horse was affected by certain conditions. We have moved 25-foot square buildings several miles on large, flat trucks. When the buildings are

too large to place on a truck, we place greased skids under them and use the truck to pull them. By this method we can move a building several miles in a short time.

Please find our check for one year's subscription to TRANSFER & STORAGE, which we think is worth the money. We should like to see more men in the transfer and storage business send their ideas to you, because by exchanging ideas we would all be receiving a benefit. We personally would be pleased to exchange ideas with any transfer and storage man in the industry.—W. H. WILLOUGHBY, Westfield, N. J.

### Liability for Freight Tax

Editor, TRANSFER & STORAGE: As our merchandise is always sold f. o. b. shipping point, with a freight allowance of a specified number of cents per 100 pounds, depending upon the destination, this freight allowance may or may not equal the freight rate. The law provides that the freight tax shall be paid by the person paying for the services or facilities rendered.

Are we justified in taking the position that in f. o. b. sale merchandise is turned over to the transportation company, who is the agent for the consignee, and that service is rendered to him and that "freight allowance" is in no way connected with the freight charges?—SUBSCRIBER.

**Reply.**—Our correspondents are correct. In a sale f. o. b. shipping point, the buyer is bound for the freight charges under the contract. He is likewise bound for the freight tax under the terms of law, which expressly put that burden upon the person paying freight charges or paying for other services.

### New York Team Rental Rates

Editor, TRANSFER & STORAGE: Please give us the rates paid for labor and charge for the rental of teams in New York City.—Portland, Ore.

**Reply.**—Following are the New York City rates:

Driver for single rig, \$19 per week; team driver, \$21 per week; helper, \$19 per week; motor truck drivers for 1, 2 and 3½-ton trucks, \$22 per week; 5-ton, \$25 per week; 7-ton, \$28 per week; packers, \$22.50 per week; warehousemen, \$21 per week; overtime, 40 cents per hour for the first hour, 60 cents per hour for the next three hours and 80 cents per hour after the fourth hour.

The 9-hour workday prevails. When teams are worked over the 9-hour limit, a rate of \$1.50 per hour is charged. The renter of the team also pays for loading and unloading and whatever other overtime charges may occur. The weekly rate for renting a team is \$60 on a monthly contract basis.



## News From Everywhere Briefly Told

**Fort Dearborn Fireproof Storage Co.,** Chicago, Ill., is now headed by the following officers who were elected at a recent meeting of the Board of Directors: E. L. Garey, president and treasurer; A. J. Weger, vice-president and general manager; S. G. Keck, secretary.

**Trans-Continental Freight Co.** has found it necessary to expand its New York office again in order to accommodate its recently increased office force. In 1915 Charles W. Milbauer, manager of the New York branch, moved into the Woolworth building, and each year since then has had to lease more space to handle the steadily increasing business in the Eastern territory. The chief difficulties in handling the business offered at present, Mr. Milbauer states, lie in obtaining from the railroads a sufficient number of cars to take care of shipments.

**Vandam Warehouse Co., Inc.,** New York City, has moved its general offices to the Columbia Building at 29 Broadway for the convenience of its increasing number of downtown customers. The company will maintain at its old address, 175 Franklin Street, an uptown office to serve the wholesale canned goods, dried fruit, rice and grocery trades.

**Joseph H. Schantz Co.,** Rochester, N. Y., has purchased the property across the street from its fireproof warehouse, and, after some remodeling, will use it for an additional household goods warehouse. This building is located on the corner of Central Avenue and St. Paul Street. It is a seven-story-and-basement building, containing approximately 150,000 square feet of floor space. A sprinkler system is installed that covers the whole area of the structure and helps the company to get an insurance rate of 35 cents. The other warehouses of the Schantz Co. have been taxed to capacity this past season and this expansion was necessary in order to handle the business being offered.



*The building recently purchased by the Joseph H. Schantz Co. It will be used to store household goods*

**Clarence A. Aspinwall,** Washington, D. C., vice-president and manager of the Security Storage Co., of that city, and president of the Security Storage & Safe Deposit Co., of Norfolk, Va., which he organized, has sailed for France to engage in war work for the Y.M.C.A. The Security Storage Co. has granted him a leave of absence for four months. Mr. Aspinwall is chairman of the household goods subdivision of the American Warehousemen's Association and a member of a number of prominent Washington clubs.

**Columbia Transfer Co.,** Chicago, Ill., has purchased practically all the outstanding stock of the St. Louis Transfer Co. and the two properties have been consolidated. Under the consolidation, the Columbia Transfer Co. operates eight depots for the receipt of outbound freight from shippers and the delivery of inbound freight to consignees. In the various depots there is approximately three-quarters of a mile of platform space. The company owns 750 head of horses and 50 five-ton motor trucks. It handles approximately 7,000,000 pounds of less than carload freight daily. The properties and equipment of the company represent an investment of \$1,750,000.

**J. O'Neil Express & Storage Co.,** Pittsburgh, Pa., has given up its downtown office at 813 West Diamond Street and will hereafter conduct both its teaming and storage work from the warehouse at 1009-15 Bidwell Street, N.E.

**The Union Transfer Co.,** Fremont, Neb., has established a truck line service between that city and Omaha. The company carries all classes of merchandise in full load lots between the two cities. The trucks are operated on a regular schedule, making three round trips a day. The company has been so successful in this work that it is contemplating buying four or five new trucks to put on this work, and so it can go more extensively into long distance haulage.

**The Tidewater Trucking Co.,** Albany, N. Y., with a capital of \$20,000, was recently chartered by the Secretary of that State to do a general trucking business in that city. The directors are C. W. Collins, E. R. Hoffman and P. J. Manwiller, all of Albany.

**Advance Transfer Co.,** Indianapolis, Ind., has been incorporated with a capital of \$10,000 to carry on a general transfer business in that city. The incorporators are A. L. Williams, A. C. Phelps and M. E. Williams.

**General Goethals** recently authorized the building of new quartermaster's warehouse in Chicago, Ill. Fifteen hours after this work had been authorized, 500 men and two steam shovels were excavating for the foundation. The new warehouse is to be located on 39th Street, west of Ashland Avenue. The building, which will be the largest reinforced concrete warehouse in the world, will have a frontage of 600 feet on Ashland Avenue, and a depth of 500 feet on 39th Street. It will have a total floor space of 1,800,000 square feet and a capacity of 27,000,000 cubic feet. The warehouse will cost in the neighborhood of \$3,000,000.

# Shippers' Index

A Guide to representative  
Storage and Transfer Companies  
arranged by States and Towns

## Trade Conditions

(As reviewed monthly by our editors)

**P**HILADELPHIA is still in a state of indecision regarding the efficient moving of freight to and from the railroad stations. While the team owners of the city have experimented with several methods of offsetting the conditions caused by congestion at freight terminals and piers, they have as yet reached no conclusion.

The Philadelphia team owners are frankly not in favor of the enforcement of the store door delivery plan, and for this reason they have been diligently seeking something to take its place. It is understood that Director General of Railroads McAdoo has approved the store door delivery plans submitted to him by Interstate Commissioner Harlan, which in turn have been referred to Regional Director Smith. The latter official is now studying the best methods to pursue in putting the plan into operation in New York City.

### Long Hauls Booming

Another phase of the delivery question that is showing rapid development is long-distance hauling of household goods and merchandise. The transfermen have been quick to see their opportunity to increase the scope of their work and at the same time decrease railroad freight congestion. This is evidenced by the fact that there now seems to be a general movement toward discarding horse-drawn equipment and substituting motor vans and trucks.

Necessarily coupled with the business of long-distance hauling is the big question of the return load which the transferman must obtain in order to reach the maximum efficiency. Return loads bureaus where the van and truck men may obtain the necessary information regarding a cargo for the trip home have been established in six states and in the District of Columbia, making thirty-five such bureaus now in operation throughout the

country. In addition to this, rural express routes are now being laid out from many large cities.

The State of Utah is trying to determine the status of a warehouse. The Public Utilities Commission of the state is anxious to learn the answers to these two questions: First, "What is a warehouse?" and, second, "When is a warehouse a public utility?" To aid it in its quest the commission has invited the various warehouses of the state to present before it the nature of the business they do, in order to determine whether they are warehouses within the meaning of the public utilities act.

Thus far, no warehouse in Utah has filed any schedules with the commission, nor has any warehouse in any other formal manner acknowledged itself to be within the jurisdiction of the commission. Yet the Utah statutes are very plain, to the effect that grain elevators are considered as warehouses and public utilities, while other warehouses easily may be so considered.

### Save Sweet Potatoes

Now it is to be put up to the warehouses to save Georgia's sweet potato crop. Because of inadequate storage facilities Georgia last year lost something like \$6,000,000 worth of this product. To prevent a repetition of the loss, the agricultural department of the Georgia Central Railroad has launched a campaign to interest the farmers of Chatham County in the building of sweet potato storage warehouses.



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## CATHCART TRANSFER & STORAGE COMPANY

Moves, Stores, Packs, Ships  
Household Goods Exclusively

Office and Warehouse, 6-8 MADISON AVE.

ATLANTA, GA.

WAREHOUSEMEN

## MORROW TRANSFER & STORAGE COMPANY

HOUSEHOLD GOODS  
Moved, Stored, Packed, Forwarded—Excellent Facilities  
SERVICE Our Boasted Pride

182-184 MARIETTA STREET

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## PEASLEY TRANSFER & STORAGE COMPANY

STORAGE, TRANSFER AND FORWARDING  
NINTH AND GROVE STREETS

CHICAGO, ILL.

## BEKINS HOUSEHOLD SHIPPING COMPANY

Reduced Rates on Household Goods, Automobiles  
and Machinery

General Offices, 805 BEDFORD BLDG., Chicago  
NEW YORK, BOSTON, BUFFALO, CINCINNATI

CHICAGO, ILL.

## The Sign That Brings You Business

ARE YOU **LEAVING CHICAGO?**

PACKING AND SHIPPING HOUSEHOLD GOODS  
OUR SPECIALTY

**THE CENTRAL CO.**

736-740 FIRST NATIONAL BANK BLDG

OVER 2½ MILLION POUNDS  
SHIPPED JAN. 1 TO JULY 31, 1917

**Send Us Your Chicago Business  
We Will Send You Ours**

MOTOR TRUCKS  
Centrally Located  
Near All Railroads

CHICAGO, ILL.

## FORT DEARBORN FIREPROOF STORAGE COMPANY

4165-29 Clifton Ave., near Broadway and Wilson.

Fireproof  
Storage.  
Motor-  
Van  
Service



Pool Car  
Handling  
a  
Specialty

The only warehouse located on the Great North Shore with private railroad switch track at its door, serving efficiently *Edgewater, Ravenswood, Sheridan Park, Rogers Park, Evanston* and the *Wilson Ave.* district.

Consignments from all railroads bill to Wilson Ave. Switch C. M. & St. P. Ry.

FORT WAYNE, IND.

## BROWN TRUCKING COMPANY

MOVING, DISTRIBUTING, STORAGE AND  
GENERAL TRANSFER—MOTOR SERVICE

Pool Cars a Specialty

Office, 125 W. Columbia Street

FORT WAYNE, IND.

## PETTIT'S STORAGE WAREHOUSE COMPANY

414 E. COLUMBIA STREET

W. L. Pettit, Jr., Pres. (Est. 1910) E. K. Pettit, Sec.  
Transfer and Storage of Household Goods, Merchandise, New Autos,  
Implements. Heavy Haulage. Motor Service. Safe Deposit Vaults.  
FACTORY DISTRIBUTORS

## We do *not* run a Return Loads Bureau

but we may be able to help  
you get a return load if you  
let us know in time. If we  
can do so, the pleasure of  
service is our reward.

TRANSFER & STORAGE  
New York



## INDIANAPOLIS, IND.

We Have the Very Best of Equipment for Handling  
Heavy Machinery, Boilers, Engines, Tanks,  
Vaults and Safes for Erecting Smoke Stacks



INVESTMENT \$200,000.00

We have just completed one of the most modern fireproof  
warehouses in the country—centrally located on a privately  
owned railroad switch accommodating eight cars.

We are equipped to give the very best service in all kinds of  
moving and packing. All shipments consigned to our care will  
receive prompt attention and our twenty-five years' experience  
and reliability insures this service.

HOGAN TRANSFER & STORAGE CO.

Members  
N. F. W. A. and I. F. W. A.

Established  
1892

## DAVENPORT, IOWA

**EWERT & RICHTER**  
**EXPRESS & STORAGE COMPANY**

FIREPROOF STORAGE WAREHOUSES ON TRACK

Storage, Distributing, Hauling, Pool Cars, Auto Storage.

Handle Merchandise and Household Goods.

Best Service.

Correspondence Solicited.

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**MERCHANTS**  
**TRANSFER & STORAGE COMPANY**

WAREHOUSEMEN AND FORWARDERS

General Offices, 9th and Mulberry Streets

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**CHASE TRANSFER COMPANY**

GENERAL FORWARDING AGENTS

Eastern Steamship Company, Maine Steamship Company  
Grand Trunk Railway

Special Attention to Carload Consignment

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Established 1880

**T. G. BUCKLEY CO.**

MOVERS OF HOUSEHOLD GOODS AND PIANOS  
MOTOR TRUCK SERVICE

REINFORCED CONCRETE WAREHOUSE

OFFICE and WAREHOUSE, 690 DUDLEY STREET

Members N. Y. F. W. A.

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LIGHT AND HEAVY TRUCKING OF ALL KINDS

Office and Stables, Rear 83 Mechanic Street

Residence, 147 Whitney Street

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**Central Storage Warehouse**

STORAGE AND DISTRIBUTING  
PACKING, CARTING, SHIPPING

WAREHOUSES, 270 LIBERTY STREET

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**CAMERON**  
**TRANSFER & STORAGE COMPANY**

Unsurpassed facilities for Storing, Handling, Transferring and  
Forwarding Merchandise and Household Goods

FIREPROOF STORAGE

420 SECOND AVENUE SOUTH

## KANSAS CITY, MO.

Are You Giving Your Customers

**Service?**

The present congested conditions of our railroads  
and slow movement of less than carload freight, and  
the possibility of embargoes on many commodities,  
make it more imperative than ever that you carry  
suitable stocks of your goods at important Western  
distributing centers to properly take care of your  
trade in that territory.

We invite you to make use of our warehouse as a  
branch of your own establishment for this purpose.  
Our building is of modern fireproof construction and  
equipment—automatic sprinkler system—low insur-  
ance rates—free switching of carloads. Ample team-  
ing equipment and twenty years of knowing how,  
insures prompt, efficient and satisfactory service.

**D. A. MORR**  
**TRANSFER & STORAGE COMPANY**

Members { Central Warehousemen's Club  
American Chain of Warehouses  
American Warehousemen's Association  
Illinois Furniture Warehousemen's Association  
New York Furniture Warehousemen's Association

Please mention this paper

## ST. LOUIS, MO.

**Columbia Transfer Company**

Special attention given to the  
distribution of carload freight

Depots: St. Louis, Mo., and East St. Louis, Ill.

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**Gordon Fireproof Warehouse & Van Co.**

Main Office: 219 NORTH 11th STREET

Six warehouses covering over one city block. 200,000 square feet of floor space. Four warehouses equipped with automatic sprinkler systems.

Warehouses served by private tracks on the C. B. & Q. and the C. & N. W. (joint track); and the Illinois Central. All roads absorb switching charges.

Accommodations for brokers, jobbers, automobile manufacturers and dealers.

**Household Goods Packed, Stored and Forwarded**

**MOVING — TRANSFER — FORWARDING**

MEMBER { New York Furniture Warehousemen's Association.  
Illinois Furniture Warehousemen's Association.  
Central Warehousemen's Club.  
Pacific Coast Furniture Warehousemen's Association.

## HOBOKEN, N. J.

**FREIGHT STORAGE**

5 BLOCKS FROM D. L. &amp; W. FERRIES

LOW INSURANCE  
RATES ON REQUEST

**HUDSON STORES, INC.**

Office and Warehouse:

Ferry Street and Park Avenue, Hoboken, N. J.

Phones—Hoboken 1810-1811-1812

## JERSEY CITY, N. J.

**STORAGE WAREHOUSE**

PENN R. R. SIDING  
INITIAL CARTAGE ELIMINATED BY SIDING  
LOW INSURANCE CARLOAD DISTRIBUTION  
RATES ON REQUEST

**HUDSON  
WAREHOUSE & DISTRIBUTING CO.**

Phones—Hoboken 1810-11-12

Ferry St. and Park Ave., Hoboken, N. J.

**WAREHOUSE**  
108-114 Academy St., Jersey City

## OMAHA, NEBR.

THE  
"CITY OF OPPORTUNITY"

Represented by the

**Pacific Storage & Warehouse Co.**

1007-9-11 JONES STREET

We have studied the problems of the national distributor of manufactured articles and merchandise and have both the experience and facilities to care for business of this kind in a way that will satisfy the most critical.

Write us about the goods you have to be distributed in this territory and we shall be glad to quote prices for delivery, storage or reshipping.

**MOTOR TRUCK SERVICE — 75,000  
SQUARE FEET OF STORAGE SPACE**

Members of the Central Warehousemen's Club

## ALBANY, N. Y.

**SECURITY  
STORAGE & WAREHOUSE CO., INC.**

1 DEAN STREET

Storage, Transferring and Forwarding  
Direct Track Facilities Pool Car Distribution

## BINGHAMTON, N. Y.

**MOLLEN  
TRANSFER & STORAGE COMPANY**

Unsurpassed facilities for storing, handling, transferring and forwarding merchandise and household goods.  
Correspondence solicited.

Main Office, Erie Depot. Warehouse, 13-15 Warren St.

**Your Advertisement  
In This Space**

will be read not only by warehouse and transfer men shipping to your neighborhood but by many national manufacturers looking for distributing facilities



**BROOKLYN, N. Y.**

Cable Address, *Jenkinis*  
Western Union

Long Distance Phones  
3100-3101-3102 Bedford



ABSOLUTELY FIREPROOF

### Long Island Storage Warehouses

Nostrand and Gates Avenues

BRANCH WAREHOUSES

881-891 Park Avenue

781-789 Kent Avenue

To save delay in consignments for delivery to any part of New York City or Brooklyn, mark goods in our care to "Eastern District Terminal, Brooklyn." This is the center of Greater New York—no delay due to congestion.

Try shipping this way. We know

**BUFFALO, N. Y.**

WE WILL LOOK AFTER YOUR INTEREST,  
ALSO THAT OF YOUR CUSTOMERS



OUR large, specially-built, six-story household goods warehouse is one of the finest between New York and Chicago. (Capacity 1000 van loads.) With our corps of expert workmen and unequalled facilities, we can render prompt and efficient service to your Buffalo patrons.

*Furniture Stored, Packed or Shipped  
to Any Part of the World*

Convenient to the railroad switches  
Motor Trucks for Prompt Delivery

Low Insurance Rates  
Fireproof Vaults

### COLD SPRING STORAGE COMPANY

1432-1442 Main Street

J. W. POWELL, President and General Manager

Members of Buffalo Chamber of Commerce, Illinois Furniture Warehousemen's Ass'n, New York Furniture Warehousemen's Ass'n.

**BUFFALO, N. Y.**

## BUFFALO

### STORAGE & CARTING COMPANY

STORAGE, TRANSFER AND  
FORWARDING

Warehouse on New York Central Tracks

**BUFFALO, N. Y.**

## O. J. GLENN & SON

Everything in the Line of Moving,  
Carting, Packing, Storage

OFFICE: 47 WEST SWAN STREET

**BUFFALO, N. Y.**

## NIAGARA CARTING COMPANY

GENERAL CARTAGE & STORAGE

Transferring Car Loads a Specialty

223 CHAMBER OF COMMERCE

**NEW YORK, N. Y.**

## MERCHANDISE SHIPMENTS

for upper east side promptly  
and efficiently handled through  
our special facilities.

Large merchandise warehouse,  
31,500 square feet for storage of  
shipments in car load lots. We  
act as distributing agents.

Transfer and trucking service.

Ship via Pennsylvania R. R.;  
Lehigh Valley; New York Central;  
Baltimore & Ohio; Erie  
R. R.; Lackawanna R. R.; New  
York, New Haven & Hartford;  
Central R. R. of New Jersey.

## H. D. BAHR TRUCKING CO.

280-287 East 137th Street

**NEW YORK, N. Y.**

## Julius Kindermann & Sons

Three large fireproof storage warehouses adjacent  
to Washington Heights and all counties  
in Westchester section

1360-62 Webster Avenue, near 170th Street, Bronx

## NEW YORK, N. Y.

**Metropolitan**

Fireproof Storage Warehouse Co.  
14-39-41 WEST SIXTY-SIXTH STREET  
Near Central Park

CHARLES S. MORRIS, Pres. and Treas.  
LAWRENCE S. MORRIS, Sec'y and Gen. Manager

We Bid for Your Business on a Basis of  
Service—"We Know How"

TWO FIREPROOF BUILDINGS  
MOTOR OR HORSE-DRAWN VANS  
AN EFFICIENT PACKING FORCE

Adjacent to all Freight Terminals

ESTABLISHED 1875  
"That means something"

Members of New York Furniture Warehousemen's Ass'n.  
Illinois Furniture Warehousemen's Ass'n.  
Southern Furniture Warehousemen's Ass'n.  
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## NEW YORK, N. Y.

**MORGAN & BROTHER**

Storage Warehouses  
and Motor Vans

MOVING STORAGE PACKING

Our reputation in handling collections on consignments is your guarantee in selecting us as your correspondent in New York City

*Furniture and Works of Art Boxed  
and Shipped to all Parts of the World*

230-232-234-236 WEST 47th STREET  
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Cable Address: MORGANWARE

Members:

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EXPRESS & STORAGE WAREHOUSE

410 WEST 47th STREET

Moving, Packing and Shipping. Motor Vans for Long Distance  
Edward Keevan, Prop. Telephone, Bryant 2296

Member of N. Y. F. W. A. and N. T. and M. T. O. A.

## NEW YORK, N. Y.

"EXPERT SERVICE PAYS"

**MOVING PACKING  
SHIPPING**

VAULTS for STORING PACKAGES  
of SILVER PLATE and VALUABLES

Our central location and modern equipment enable us to offer you an unusually efficient service for your New York consignments.

Members of New York Furniture Warehousemen's Association  
Illinois Furniture Warehousemen's Association

**THE WEST END STORAGE WAREHOUSE**

Ben Blumenthal, Proprietor Grant Wayne, Manager  
Louis J. Crumm, Supt.

202-210 West 89th Street



Consign all C. L. & L. C. L. Shipments for Delivery to Warehouse

B. & O. R. R.—135th St. and Harlem River Station  
C. R. R. of N. J.—132d St. and S. Boulevard Station  
D. L. & W. R. R.—135th St. and Harlem River Station  
Erie R. R.—135th St. and Harlem River Station  
Lehigh Valley R. R.—E. 124th Street Station  
L. I. R. R.—Harlem and Morrisania Station  
N. Y. C. & H. R. R. R.—130th Street Station  
N. Y. N. H. & H. R. R.—Harlem River Station  
Penn. R. R.—E. 125th Street Station  
West Shore R. R.—130th Street Station

## NIAGARA FALLS, N. Y.

**WILLIAM YOUNG**

TRANSFER AND STORAGE OF  
HOUSEHOLD GOODS

MACHINERY AND SAFE MOVING A SPECIALTY  
"Unexcelled SERVICE"

## ROCHESTER, N. Y.

**Blanchard Storage Co., Inc.**

Allen and N. Washington Streets

Arthur S. Blanchard, President and Treasurer

Storage  
Moving

HOUSEHOLD GOODS

Rochester "Chief" Rug and Carpet Cleaners

Packing  
Shipping

Members New York and Illinois Furniture Warehousemen's Association

## ROCHESTER, N. Y.

**ROCHESTER CARTING CO.**

Members New York Warehousemen's Association  
Distributors of Car Load Freight

Unsurpassed facilities for Storing, Transferring and Forwarding  
Merchandise and Household Goods  
Two Large Storage Warehouses

162-164 ANDREWS STREET



## ROCHESTER, N. Y.

**JOSEPH A. SCHANTZ  
COMPANY**

173-219 CENTRAL AVENUE



We have every facility for handling your Rochester shipments

**Two Fireproof Warehouses**  
**Two Non-fireproof Warehouses**  
**Large Fleet of Modern Motor Vans**

By mailing your Rochester bills of lading to us you are guaranteeing the most prompt and courteous service to your patrons. You are also protecting your own interests, because we will return all collections promptly and watch the details carefully.

Member of New York Furniture Warehousemen's Ass'n.

## SYRACUSE, N. Y.

Pres., Lewis Sheridan      Sec., W. F. Engle  
 Treasurer, Robert Flagg

**Flagg Storage Warehouse Co.**

Forwarders and Shippers' Agents.  
 Largest Fireproof Warehouse in Central New York.  
 Always ready to store or ship anything anywhere.  
 Good Railroad Center and Distributing Point.  
 Growing to meet the Needs of Conservative Shippers.  
 Storage of All Kinds of Merchandise.

Pool car distribution our specialty. We can offer all facilities of Branch House service.  
 Track connection with New York Central and West Shore Railroads.

## UTICA, N. Y.

**UTICA**  
**CARTING & STORAGE COMPANY**

Storage, Trucking, Forwarding,  
 Shipping, Rigging, Transferring,  
 Distributing, Checking, Packing

**MOTOR VANS FOR LONG DISTANCE**

Members New York and Illinois Associations.

Notice this section grow.

This means that shippers find it useful.

This usefulness will increase with every edition.

## AKRON, OHIO

**THE UNION**  
**FIREPROOF WAREHOUSE CO.**

**FURNITURE AND MERCHANDISE  
 STORAGE**

**THREE FIREPROOF WAREHOUSES****THE COTTER SYSTEM**

Members New York, Illinois and American Warehousemen's Assns.

## CANTON, OHIO

**CUMMINS STORAGE COMPANY**

**STORAGE, DRAYING, PACKING AND  
 FREIGHT HANDLING A SPECIALTY**

Unsurpassed Facilities for Handling Pool Cars

310 EAST NINTH STREET

## CINCINNATI, OHIO

**"STACEY FIRST"**

**SERVICE**  
**FIREPROOF AND NON-FIRE-  
 PROOF WAREHOUSES**

**MODERN MOTOR  
 VAN EQUIPMENT**

**RELIABILITY**

Established 1891      Investment \$250,000  
 Your interests carefully protected

**STACEY AUCTION & STORAGE CO.**  
 2333 Gilbert Avenue

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**THE LINCOLN**  
**FIREPROOF STORAGE COMPANY**

5700 EUCLID AVENUE

**CONSIGNMENTS SOLICITED**  
**PACKING—MOVING—STORAGE**

## CLEVELAND, OHIO

**SERVICE IS THE THING**

For You and Your CLEVELAND Customers

LET US SERVE THEM AS  
THEY SHOULD BE SERVED*Our Equipment*—Fireproof and  
Non-Fireproof Storage. Motors  
and Horse-Drawn Vans.*Our Organization* is complete and  
is more than ample for the largest  
and most difficult proposition.*We Conserve Your Interests***THE CENTRAL STORAGE  
WAREHOUSE CO.**1843 East 55th Street  
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**NEAL  
FIREPROOF STORAGE COMPANY**

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Modern Fireproof Buildings

Carload Consignments Solicited

## CLEVELAND, OHIO

**THE  
REDHEAD STORAGE CO.**

2041 E. 105th STREET

**MOTOR VAN SERVICE**Fireproof Warehouse  
Household Consignments Solicited  
Satisfactory Service Assured

Members I. F. W. A.

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THERE IS  
NOTHING TOO LARGE  
NOR TOO SMALL  
FOR US TO HANDLE**THE BUCKEYE  
TRANSFER & STORAGE COMPANY**

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**THE LINCOLN STORAGE CO.**

"Fireproof"

BIG 4 TRACK IN BUILDING.

Members N. Y. &amp; I. F. W. A.

313-315 EAST FIRST STREET

A. B. Compton, Vice-President

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**THE COTTER  
TRANSFER AND STORAGE CO.****FIREPROOF AND NON-FIREPROOF  
WAREHOUSES**

Furniture and Merchandise Storage

Motor Trucks

Heavy Hauling

Distributing

*The Cotter System*

Members New York, Illinois and American Warehousemen's Assns.

## TOLEDO, OHIO

**DEPENTHAL  
TRUCK & STORAGE COMPANY**

108 SUMMIT STREET

Member of New York, Illinois, and Southern Furniture  
Warehousemen's Associations

## TOLEDO, OHIO

**THE TOLEDO  
MERCHANTS' DELIVERY COMPANY**

128 SUMMIT STREET

AUTO SERVICE—FIREPROOF STORAGE

Household Goods and Automobiles Moved, Packed, Shipped and  
Stored. Safes, Boilers, Machinery and Smokestacks Moved.

100% SERVICE

Reference: Second National Bank, or any bank in Toledo

## TULSA, OKLA.

Consign your local and carload shipments  
for Tulsa, Okla., to**Atlas Transfer & Storage Co.**

23 WEST ARCHER

Moving—Packing—Storage—Anything—Anytime—Anywhere  
Carload Distributors, Receivers and Forwarders

Fireproof and Non-Fireproof Warehouses

MOTOR EQUIPMENT

"THANK YOU"

## ERIE, PA.

**ERIE  
STORAGE & CARTING COMPANY**

1502 Sassafras Street

Members of A. W. A.,  
I. F. W. A., N. Y. F. W. A.,  
Am. Chain &  
Rotary ClubWarehouse in the center of the  
city, with trackage from N. Y.  
Central Lines and switching to  
all other lines. Unexcelled facil-  
ities for handling shipments of  
household goods and merchan-  
dise. Branch house service for  
manufacturers.

## OIL CITY, PA.

**CARNAHAN  
TRANSFER & STORAGE COMPANY**

R. C. LAY, Proprietor

Piano Moving a Specialty

Distributing and Forwarding Agents; Packing  
Fireproof Warehouse



PHILADELPHIA, PA.

**ATLAS**

**STORAGE WAREHOUSE**

Office and Warehouse:  
Market and Thirty-seventh Streets,  
Philadelphia, Pa.

Member Pennsylvania,  
New York, Illinois,  
and Southern Furniture  
Warehousemen's Associations

Service is the measure of the difference between good work and poor.

Service of the right sort in the storage, moving, packing and shipping of household goods and office furnishings exclusively, constitutes our business.

As it relates to shipments consigned to us, we interpret service to require safeguarding the interests of the shipping warehouse, prompt remittance of collections, fair charges and treatment to customers, and to all—courtesy.

We solicit your Philadelphia shipments.

For West Philadelphia and general city delivery consign C. L. and L. C. L. shipments—P. R. R., 30th and Market Sts. Station; P. & O. R. R., 24th and Race Sts. Station; P. & R. Rwy., 23rd and Arch Sts. Station.

PHILADELPHIA, PA.

## Penn Storage and Van Co.

2136 MARKET STREET

Who looks after YOUR interests, also those of your CUSTOMER, in PHILADELPHIA?

Good packing needs careful unpacking to insure a Satisfactory Removal.

"LET WIGHTMAN DO IT"

He's been doing it for over twenty-five years. Ship in our care as follows:

*30th and Market St. Station  
Pennsylvania R. R. Co.*

*23d and Arch Street Station  
Philadelphia & Reading Ry.*

*24th and Race Street Station  
Baltimore & Ohio R. R.*

PHILADELPHIA, PA.



Our large fleet of motor trucks enables us to render quick and efficient service to your patrons.

We are accessible to all depots and suburbs of our city. Our warehouses are within two blocks of North Philadelphia Station of the Pennsylvania Railroad and the 12th and York Streets Station of the Philadelphia & Reading or the Baltimore & Ohio.

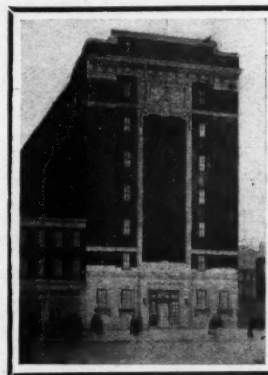
Collections through our office will assure prompt returns.

*Fireproof and Non-Fireproof Warehouses*

**Miller North Broad Storage Co.**

2709-2721 North Broad Street

PHILADELPHIA, PA.



## 20<sup>th</sup> CENTURY

THE LAST WORD IN WAREHOUSES

A solid concrete building. Best location in Philadelphia. A fleet of Pierce Arrow enclosed vans. We operate a large garage adjoining our warehouse capable of accommodating the largest van built. Try us when your van is in Philadelphia. All collections through our office promptly remitted. Members New York Warehousemen's Association.

20<sup>th</sup> CENTURY STORAGE WAREHOUSE CO.

3120-22-24-26-28-30 MARKET STREET  
(Opposite West Philadelphia Station P. R. R.)

## PHILADELPHIA, PA.

**OUR HOBBY**

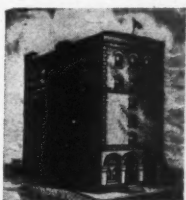
is the distribution of goods for  
National Merchandisers

**North Philadelphia Storage Co., Inc.**  
SHIBE BALL PARK

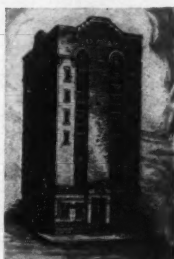
## PITTSBURGH, PA.

**We Serve Pittsburgh and Vicinity**

Shipments consigned  
in our care are in-  
sured careful han-  
dling and personal  
attention.



Our experience of 28  
years and constant  
growth coming with  
such a long period of  
activity, enables us  
to safeguard the  
joint interests of our  
correspondents and  
their customers.



We have trackage on  
Penn'a. Railroad  
(East Liberty Sta-  
tion) direct to ware-  
house; padded vans,  
both motor and horse  
drawn, thoroughly  
skilled workmen,  
2,000,000 cubic feet of  
storage space.

ESTABLISHED 1889

INCORPORATED 1896

CABLE ADDRESS: DON'T FORGET TO GET THE MONEY

**HAUGH & KEENAN**  
Storage and Transfer Company

Centre and Euclid Avenues

## PITTSBURGH, PA.

**HOEVELER**  
WAREHOUSE COMPANY  
MOVERS AND STORERS

750 MILLVALE AVENUE

## PITTSBURGH, PA.

**MURDOCH**  
STORAGE & TRANSFER COMPANY

Successor to

W. A. HOEVELER STORAGE COMPANY

General Office and Warehouses

546 NEVILLE STREET

## PITTSBURGH, PA.

**WEBER**  
EXPRESS & STORAGE COMPANY  
GENERAL HAULING

Moving, Packing and Storing of Furniture and Pianos

4620 HENRY STREET

## SCRANTON, PA.

"The World Moves—So Does Post"

**R. F. POST**  
ESTATE

44 LACKAWANNA AVENUE

Freight, Furniture, Pianos, Safes, Machinery, Boilers, Stacks, etc.  
DRAYMAN, RIGGER, AND WAREHOUSE

## EL PASO, TEXAS

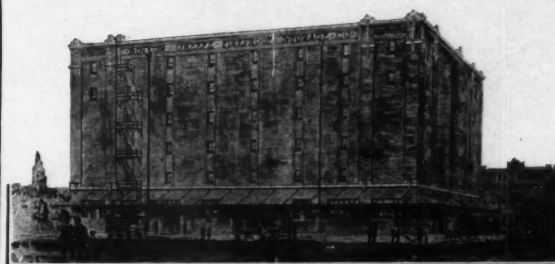
**WESTERN**  
TRANSFER & STORAGE COMPANY

220-26 S. STANTON STREET

ONLY FIREPROOF STORAGE IN EL PASO

Forwarders and Distributors—Trucking of all kinds—Distribution  
Cars a specialty—Warehouse on Track

## FORT WORTH, TEXAS



**Binyon-O'Keefe**  
Fireproof Storage Company

Est. 1875

Your consignments to Fort Worth  
will receive intelligent service. We  
have a siding on the Rock Island Rail-  
road with free switching from all lines.  
Fireproof warehouse, 90,000 sq. ft.,  
yard storage, factory distributors.

Members of

Illinois Furniture Warehousemen's Association  
Southern Furniture Warehousemen's Association  
Central Warehousemen's Association

## HOUSTON, TEXAS

**WESTHEIMER**  
WAREHOUSE COMPANY

STORAGE AND DISTRIBUTING

Fireproof Warehouses Separate Locked Rooms



## SALT LAKE CITY, UTAH

Members American Warehousemen's Ass'n  
Central Warehousemen's Club**JENNINGS HANNA  
WAREHOUSE COMPANY**

Railroad trackage all lines. General Merchandise storage. Merchandise distributors. A branch house without the expense of one. Insurance rate only 18 cents, which shows class of building we own, with paid-up capital of \$150,000.00. 100,000 sq. ft. of floor space.

Write for rates and list of references

## PARKERSBURG, W. VA.

**PARKERSBURG  
TRANSFER & STORAGE CO.**

Distributing and Forwarding Agents      Track in Building  
101-113 ANN STREET

## YAKIMA, WASH.

**MILLER & LENINGTON  
CONTRACTORS**

DISTRIBUTING and FORWARDING AGENTS

TRANSFER-STORAGE-WAREHOUSING

Motor Trucks and Team Equipment for All and Every Kind of  
Hauling

SHIP IN OUR CARE and let us be "At your service with best  
of service"

Office: 10 East A Street      Sidney Hotel Bldg.

Phone 571

## MONTREAL, CANADA

Established 1857

**Meldrum Brothers, Limited**

CARTAGE CONTRACTORS

Unexcelled facilities for the teaming of carload steamship importa-  
tions and heavy merchandise

OFFICE, 32 WELLINGTON STREET

If the City to which you are shipping  
is not represented in this list, choose  
the nearest as the geographical  
arrangement will help you.



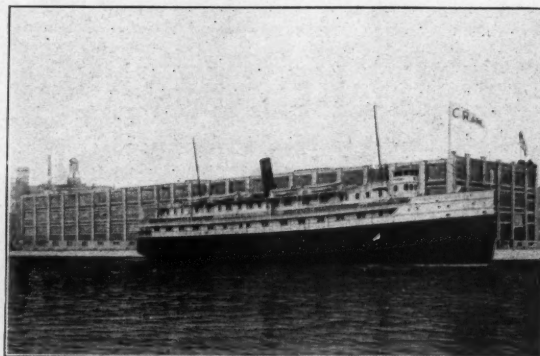
W. S. S. COST DURING 1918					
April	\$4.15	July	\$4.18	Oct.	\$4.21
May	4.16	Aug.	4.19	Nov.	4.22
June	4.17	Sept.	4.20	Dec.	4.23
W. S. S. WORTH \$5.00 JANUARY 1, 1923					

**Labor Is Scarce**

Handle more goods, and  
do it faster by installing  
modern appliances

**We Equipped These Two  
Plants and Many Others**

Equipped with one 10,000 lbs. capacity Mechanical Operated Heavy Duty Warehouse Elevator and one 1,800 lbs. capacity Electric Push Button Passenger Elevator



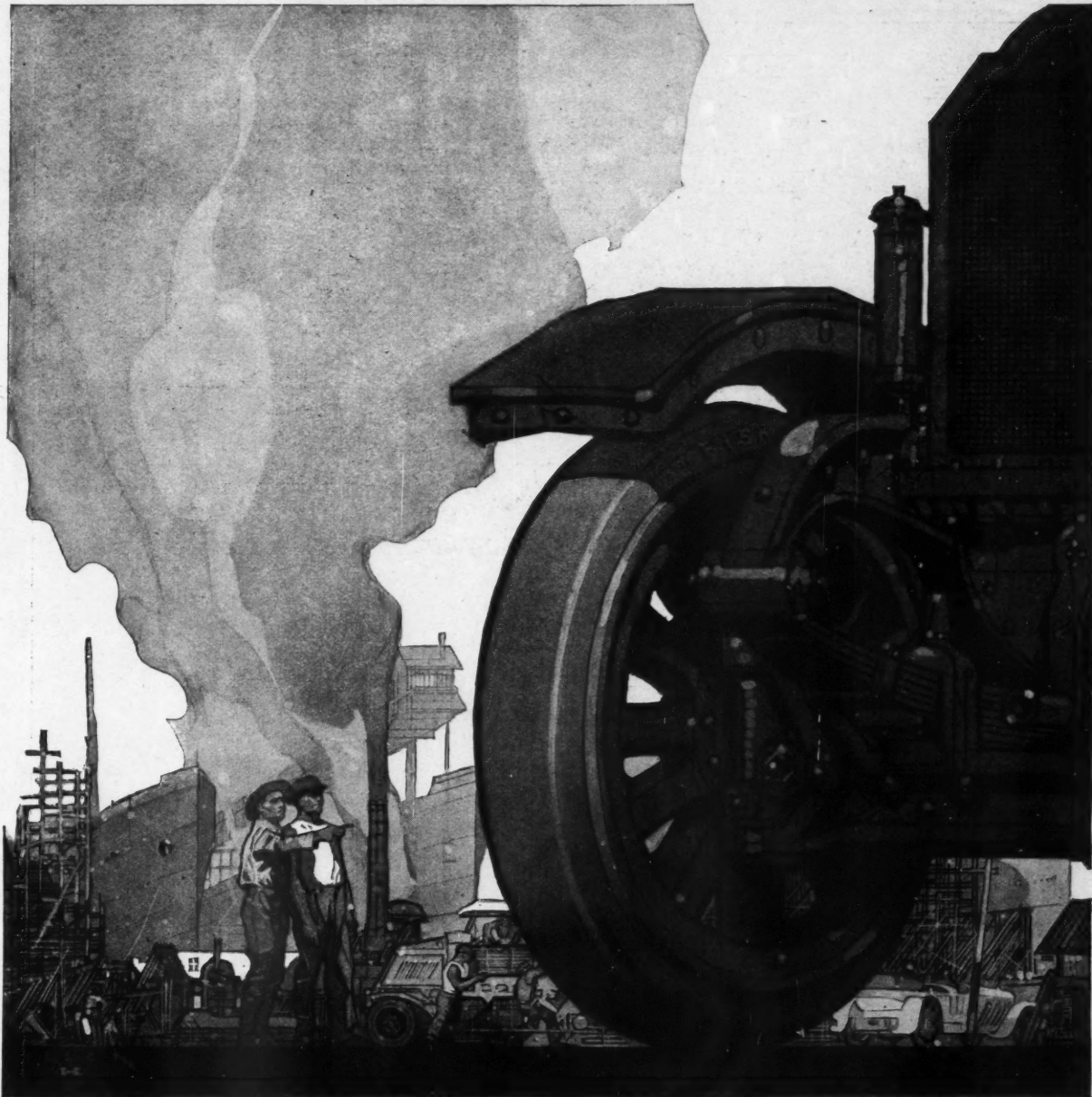
C. R. & M. Boat Line Warehouse just equipped with two 6,000 lbs. and one 8,000 lbs. capacity Mechanical Operated Heavy Duty Warehouse Elevators and one 8,000 lbs. capacity Hydraulic Plunger Type Heavy Duty Warehouse Elevator

**Heavy Duty  
Warehouse Elevators**

As fool-proof as it is possible  
to make them. We specialize  
in warehouse needs and ask  
an opportunity to study your  
requirements. Write us today.

**COLLEY ELEVATOR CO., Agents**  
522 West Monroe Street      Chicago, Ill.

PLEASE MENTION TRANSFER &amp; STORAGE WHEN WRITING TO ADVERTISERS



A BILLION DOLLARS, half a million workmen and houses for them to live in—2000 ships! These are the big figures of our 1918 ship-production program to help the Allies.

*"There is now a Fisk Tire  
for every motor vehicle that rolls."*

**M**ATERIALS must reach the yards if *ships* and houses for the workmen are to be built.

MOTOR TRUCKS, by relieving freight congestion, are doing wonders in the transportation of materials.

TO KEEP GOING, trucks must have dependable tires.

FISK TRUCK TIRES are dependable, sturdy and strong. They steadfastly meet any service demand put upon them.

WHEN you need *dependable* solid tires—buy FISK.

# FISK SOLID TIRES

PLEASE MENTION TRANSFER & STORAGE WHEN WRITING TO ADVERTISERS





One of the two G. V. Electrics recently installed by Cain's Transfer Company

## Hauling "Props" at a Profit

The Cain family have been factors in the hauling, storage and delivery of scenery and other theatrical effects in New York for two generations. As specialists in their field they have maintained a large number of horse wagons, many of them of unconventional design, and only recently have they tried motor delivery.

The two 2-ton G. V.'s in their service have demonstrated that in this field as in others the Electric can run rings around horse equipment. These trucks go to Brooklyn, Staten Island, New Jersey and the Bronx, frequently making 50 miles per day each. They haul not only trunks and the smaller "drops" and "flats," but extras up to 60 feet long. These lie across a centre-board-like support provided for this purpose.

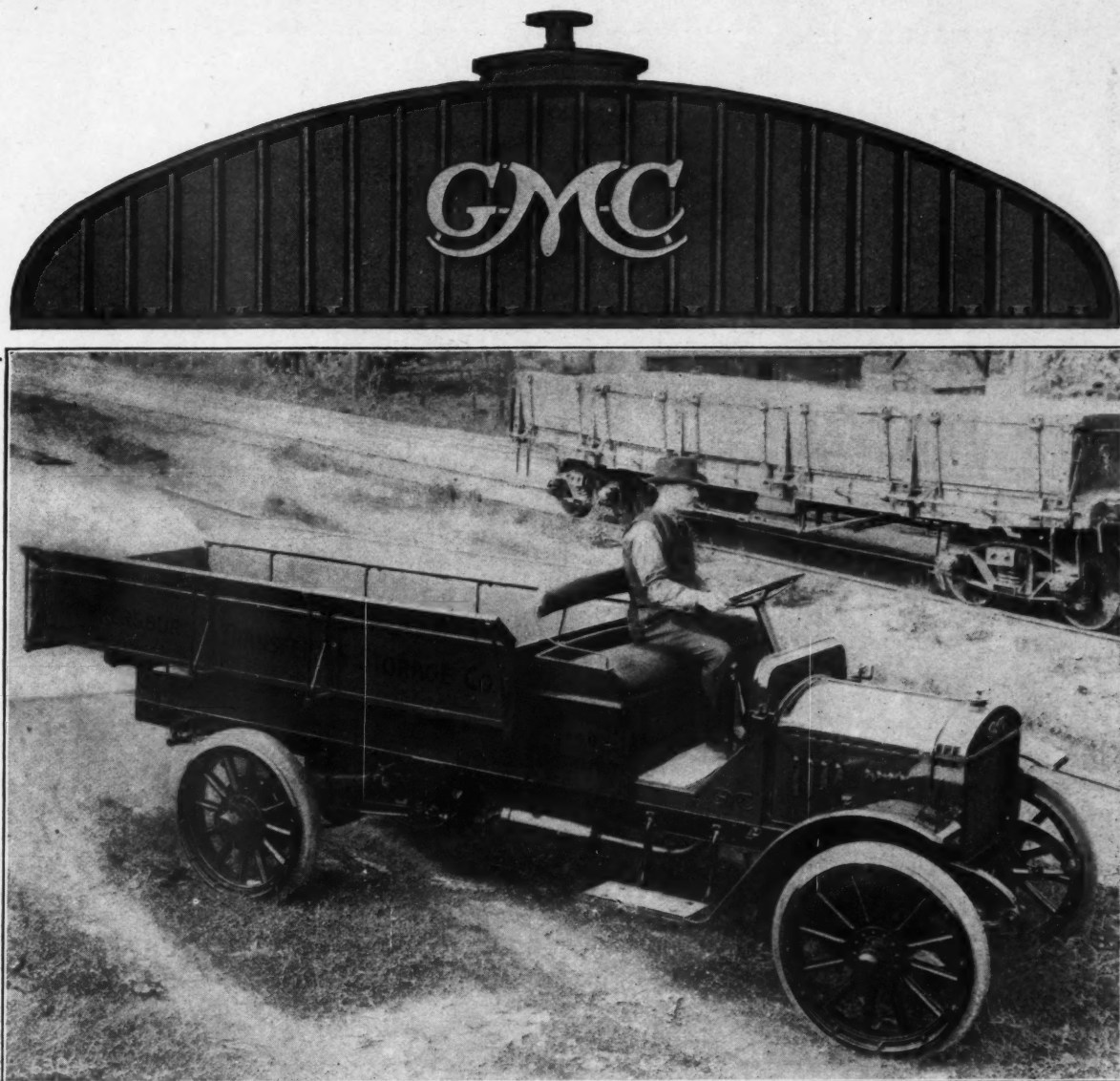
The two Electrics are never without drivers, which is not always true of some of Mr. Cain's horse trucks. In addition, they are saving money at a rate which will soon wipe out the investment.

We have hundreds of trucks in the express, transfer and storage van service and will be glad to give you the benefit of our broad experience without obligation. Catalogue 127 on request.



**GENERAL VEHICLE COMPANY, Inc.**  
GENERAL OFFICES AND FACTORY - LONG ISLAND CITY, N. Y.





## "Service First"—Via GMC

It's a splendid slogan.

The Parkersburg Transfer & Storage Company realized what service means to their business—success or failure.

And by adding GMC to their slogan, assurance has

been given that the motor truck part of the service will be successful.

GMC Trucks—in the light delivery model—have not only speed, economy of operation and ability to do work faithfully, but they have over-capacity and the same staunch, sturdy qualities which go with heavy duty trucks.

And there's a GMC for every job. Six sizes in all make certain that the task to be done will be fitted by a truck built for the work.



The GMC  
Samson Farm Tractor —  
also made by the General  
Motors Truck Company

*Let your next truck be a GMC*

## GENERAL MOTORS TRUCK COMPANY

*One of the Units of the General Motors Corporation*

New York

Boston

San Francisco

PONTIAC, MICHIGAN

*Distributors Most Everywhere*

Philadelphia

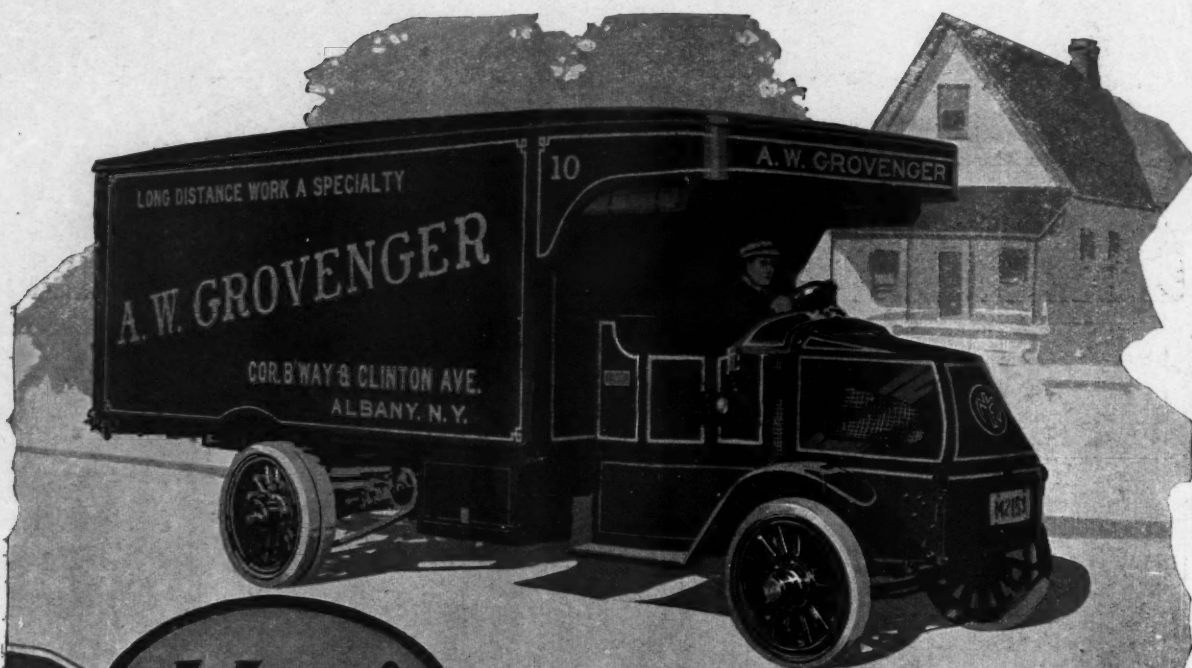
St. Louis

Chicago

(362)

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**Mack**  
TRUCKS

## "MACK for Mine"

*A. W. Grovenger, Albany, N. Y.*

About a year ago Mr. Grovenger purchased a 3½ ton MACK "AC" truck. Shortly afterwards he bought another and about three months later he bought a 2 ton MACK "AB" truck. All are equipped with furniture van bodies.

"I have found the MACK far more satisfactory for our business than any other make," says Mr. Grovenger. "These trucks have been driven in the neighborhood of 10,000 miles. We have never ground a valve, cleaned out the carbon or touched a bearing. We average 5½ to 6 miles to the gallon of gasoline and about 500 miles to the gallon of oil. We can make New York from Albany in a little better than 8 hours—a run of 160 miles.

"We have never been tied up on the road. The economy is really remarkable in comparison with others I have used. 'MACK for Mine.' I expect to standardize on our equipment."

The power, speed and durability of MACK trucks make enthusiasts of their owners. For twenty years MACK trucks have held the leading position in the motor transportation field.

We have facts and figures of great interest to transfer and storage men. Write for them.

MACK truck capacities: 1 to 7½ tons; with trailers, to 15 tons.

Bodies designed to meet specific needs.

**INTERNATIONAL MOTOR COMPANY**  
NEW YORK

*Performance counts*

The Seal of  
Dependable Service



Trade Mark Registered  
U. S. Patent Office



## Triumphs in Heavy Haulage

*An 80-mile trip pulling a trailer with a total load of 6500 feet of lumber*

ACME MOTOR TRUCK CO.,  
Cadillac, Mich.

Gentlemen:

I am in the heavy hauling business and am in position to give a truck a thorough test, and as I have driven practically every make of truck I am just giving the Acme what is due it when I say that it performs better than any other I ever tried.

I am hauling lumber for Lake Stevens, about an eighty-mile trip from Seattle, and I always pull a trailer. On the 2-ton Acme I usually load about 3500 feet and on the trailer about 3000 feet. Despite severe grades, there is only a short stretch or two that I have to throw her into low, and yet my gasoline consumption is about eight miles to the gallon.

I also find it to be very light on oil. There are lots of other things that I could say in favor of Acme trucks, but when I tell you that I have placed my order for another one of the same size I am using, you can draw your own conclusions.

W. J. SCRATCHLEY,  
For HEAVY HAULING COMPANY.

Your heavy hauling is in just as safe and sure hands with the Acme as is that of the Heavy Hauling Company of Seattle, Washington.

**HELP WIN  
THE WAR**  
*Relieve the Railroads*

Reduce your  
delivery costs  
and end delay  
with the ACME  
in your service

Send for the new book, "Pointers to Profits," so that you may understand Acme's fitness for money saving and money earning in your business.

Let us send you our new book, "Pointers to Profits." It has figures that will fit your own business. Write to

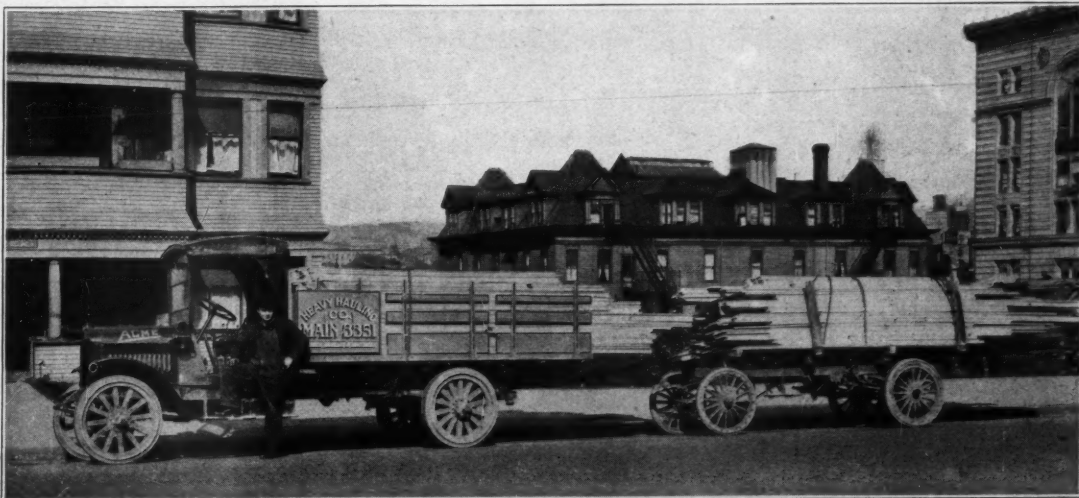
**ACME MOTOR TRUCK CO.**

146 Mitchell Street CADILLAC, MICHIGAN

*Sizes: One to four tons*

*These are the  
Acme Proved Units*

Continental Motor  
Timken Axles  
Timken Bearings  
Timken-David Brown Worm  
Drive  
Cotta Transmission  
Borg & Beck Clutch  
Ross Steering Gear  
Blood Bros. Universal Joints  
Smith Pressed Steel Frame  
Detroit Springs  
Hayes Artillery Type Wheels  
Eisemann High Tension Magneto  
Rayfield Carburetor  
Stewart Vacuum Feed  
Tubular Type Truck Radiator  
Centrifugal Type Governor



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# Now it is the Storage Battery Vehicle



Right into the car to unload with the storage battery truck



Doing six men's work and in less time



Up a 21% incline with load of cocoa beans



Hauling big loads at docks and terminals



Bulky goods are easily and quickly handled

## Vehicle

Two important conditions have brought about a tremendous increase in the use of storage battery vehicles. Shortage of common labor, such as hand truckers, etc., has brought about the use of the storage battery industrial truck or tractor. One of these and one man does the work of as many as ten or fifteen hand truckers. The illustrations at the left show some of these at work.

Increased cost of gasoline and uncertainty as to the future has resulted in widespread use of the storage battery road truck. And to their great satisfaction, users find that electrics operate cheaper than "gas" cars, even at pre-war gasoline prices.

The storage battery vehicle is coming into its own.

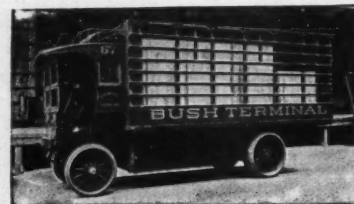
The storage battery is the most important part of the storage battery vehicle. On it depends reliable and economical operation.

No small part of the success of these vehicles is due to the use of Edison Storage Batteries.

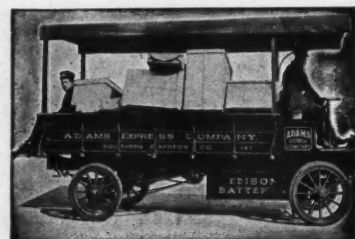
The Edison Storage Battery is different from all others. It is the only battery that has any iron or steel in its construction or elements, or that uses a non-acid solution.

These features give the Edison Battery great strength, durability and reliability. It stands up in the hardest service, day in and day out, year after year.

Let us tell you how you can apply electrics to your transportation problems. Ask for Bulletins 500B and 600B, and details.



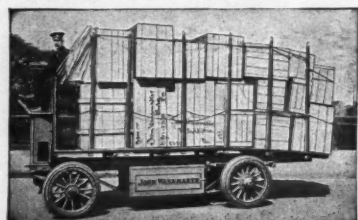
One of a fleet of 42 5-ton trucks in regular use at a large marine terminal



Electrics have proven very economical for express and transfer companies. The upkeep and repair costs of electrics are remarkably low. Simplicity of its power plant, and reliability of Edison Batteries ensure this



Over 142 Edison Vehicle Batteries are being used by company operating above truck



Know your transportation costs and you will use electrics. Leading merchants have proved the economy of equipping large fleets with Edison Batteries

## EDISON STORAGE BATTERY CO.

FACTORY AND MAIN OFFICE, ORANGE, N. J

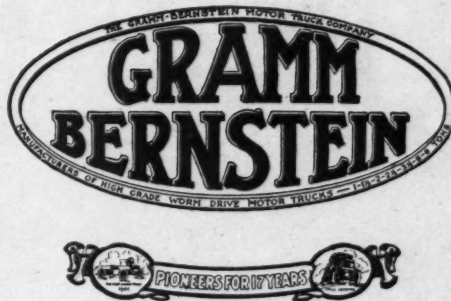
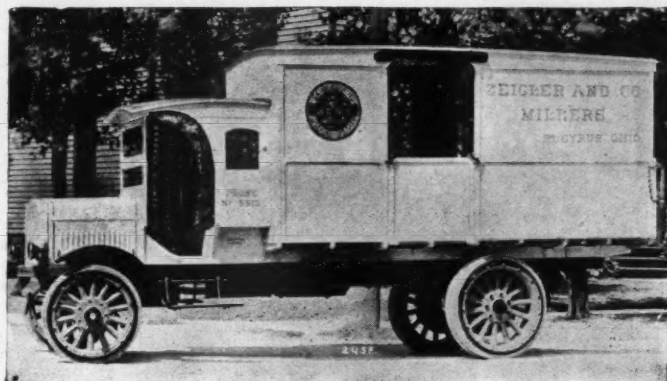


Distributors in

New York	Boston	Chicago
Detroit	San Francisco	Seattle
Los Angeles	New Orleans	Pittsburgh
Washington	Kansas City	Philadelphia



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## Zeigler & Company, Millers of Bucyrus, Ohio

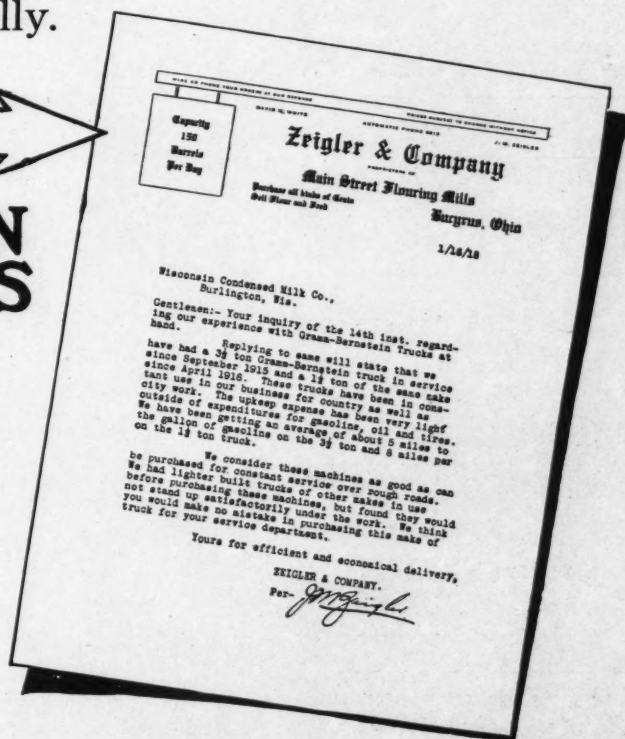
have been using their Gramm-Bernsteins constantly on the hard work of country collections—work under which other trucks had not been able to stand up. Their letter shows how these trucks are serving them efficiently and economically.

NOTE THEIR SATISFACTION

## GRAMM-BERNSTEIN MOTOR TRUCKS

are everywhere, in every line of business, doing the hardest work—meeting the most severe requirements.

They are first choice where ability, economy and freedom from trouble are the things sought. 17 years of successful leadership in truck building is built into every G-B truck.



**THE GRAMM-BERNSTEIN MOTOR TRUCK COMPANY, LIMA, OHIO**





## DUPLEX 4 - WHEEL DRIVE TRUCKS

*Built for Year-'Round Service*



11th YEAR

*The Duplex, shown above, is returning with a 7-ton load from a 10-mile trip across Oklahoma oil fields. Lack of roads and the ease with which the 3½-ton truck hauled its load over fields and across streams led oil operators to declare that "no road is still a road for the Duplex."*

With the sun shining brightly and highways hard and dry, we often fail to take into consideration weather and road conditions as they will be six months from now, when buying motor trucks.

Demand a motor truck that is 100 per cent efficient in winter or summer—a motor truck that will haul capacity loads through hub-deep mud, over slippery clay roads and up ice and snow-covered hills—a motor truck that is on the job 365 days in the year.

The Duplex is never put in storage during the winter months.

It is giving year-'round service because the Duplex 4-wheel drive principle and Duplex-Adler differentials insure dependability under most extreme weather and road conditions.

With the front wheels always *pulling* and the rear wheels always *pushing* the Duplex has the inherent strength and power to "get there" in spite of rain, snow and blizzards.

*Let us send you Duplex haulage facts and figures for your particular business. Write for "Duplex Doings," issued in the interest of economical and better transportation methods.*

**DUPLEX TRUCK CO., 2042 Washington Ave., Lansing, Michigan**

# Otis Operatorless Elevators

## Keep Freight Terminals Clear

The country is learning through costly experience that freight efficiency depends as much upon terminal and warehouse facilities as upon railway service.

Old-fashioned systems at warehouses are certain to cause congestion. Platforms are blocked. Cars that should be emptied and released at once are held up for days, even weeks.

But there is a key to this situation. Designers of up-to-date terminals, warehouses and other industrial buildings have found it in the

## Otis Operatorless Elevator

With the Otis Operatorless Elevator, as the name implies, no operator is needed. The trucks are placed on the elevator and the dispatcher sends them to the desired floor simply by pushing a button. When the floor is reached, an automatic leveling device registers the elevator platform accurately with the landing, the doors are opened automatically and the load is ready to be rolled off—still on the same wheels which carried it from the car.

Steady progress. No congestion. No waste of time or labor.

*"On Wheels from Start to Finish"*

### OTIS ELEVATOR COMPANY

Eleventh Avenue and Twenty-Sixth Street - New York

*Branches in All Principal Cities of the World*



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# Sterling

## HEAVY DUTY TRUCKS

## Economy Deliveries

### Vibration and Upkeep Reduced to Minimum

—by exclusive wood-inlaid shock-absorbing frame—no constant hammering on steel alone.

—Bolts that stay tight take the place of rivets that work loose and rattle.

For heavy-duty the Sterling 7-ton chain drive dump truck is performing wonders in motor transportation all over America.

Great simplicity and sturdy construction.

Over 300 less parts than most trucks.

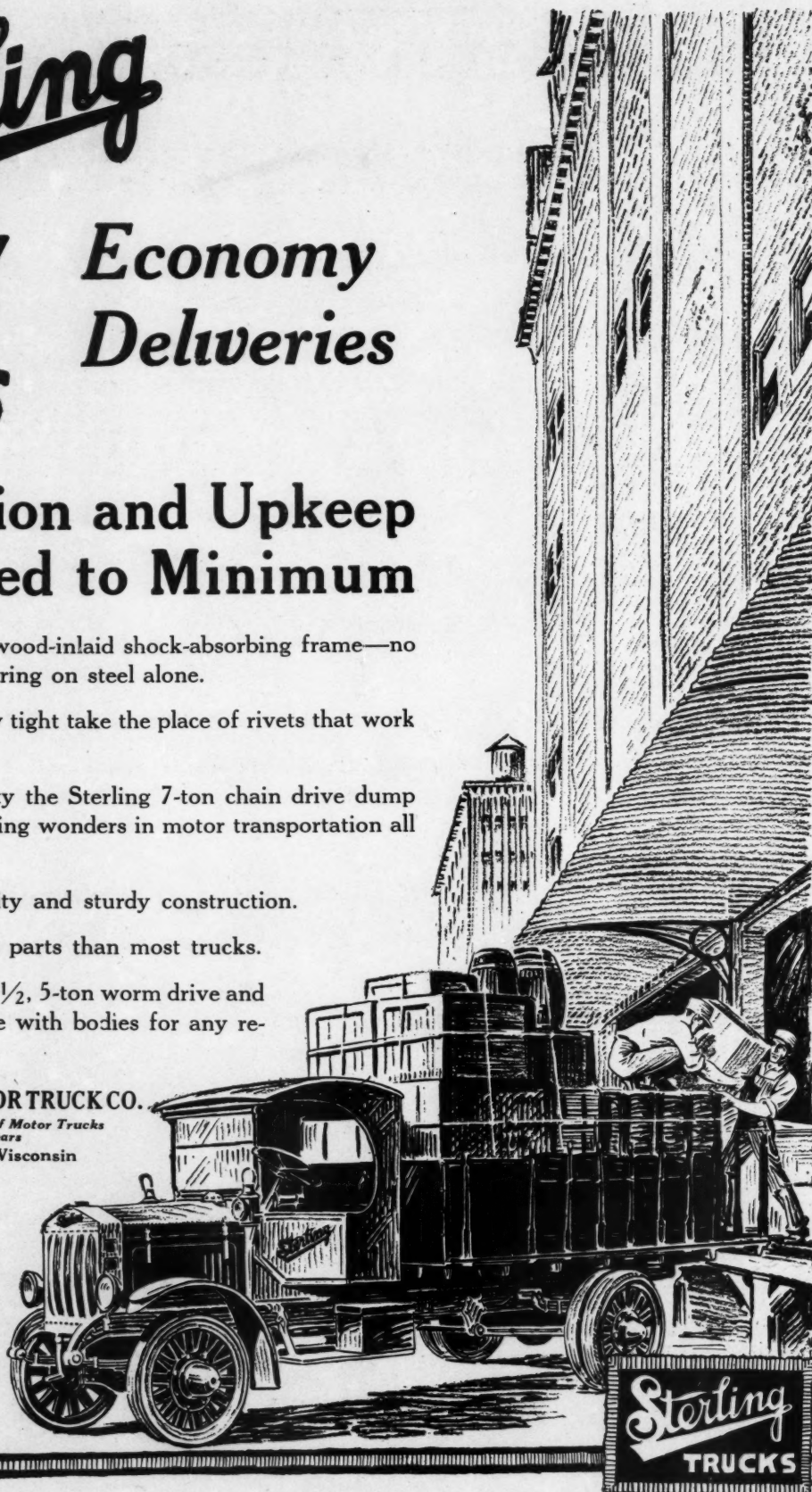
Built in 2½, 3½, 5-ton worm drive and 7-ton chain drive with bodies for any requirements.

**STERLING MOTOR TRUCK CO.**

*Exclusive Builders of Motor Trucks  
for 11 years*

Milwaukee, Wisconsin

**Write for  
Complete  
Information**



PLEASE MENTION TRANSFER & STORAGE WHEN WRITING TO ADVERTISERS

# More Power-Less Gasoline

Increase your power—save fuel and oil. Decrease carbon trouble—cut down running expense with a full set of

## McQUAY-NORRIS LEAK-PROOF PISTON RINGS

*Seven Years of Use Has Proved Them*

Many owners install these rings as a matter of course in each succeeding car or engine they buy. They have found it real economy to put in the best piston rings obtainable.

For over seven years McQuay-Norris **LEAK-PROOF** Piston Rings have been giving car and engine users increased power at decreased cost. They improve compression by preventing escape of gas. Keep down excess oil—reduce carbon—keep spark plugs cleaner.

The McQuay-Norris **LEAK-PROOF** design is exclusive. Not an experiment, but tried and found efficient by the test of seven years of performance.

This design is the secret of piston ring efficiency. It has solved once and for all the piston ring question. Standard everywhere because they have made good so consistently.

Made in every size and over-size. Fit every model and type of motor and engine. Obtainable everywhere through supply houses, dealers, garage and repair men.

**BE SURE YOU GET THE GENUINE—**  
It will save you the cost of experimenting



Manufactured by

**McQUAY-NORRIS MFG. CO., St. Louis, U.S.A.**

Branch Offices

New York Chicago Pittsburgh San Francisco Los Angeles  
Seattle Kansas City St. Paul Atlanta Dallas

Canadian Factory: W. H. Banfield & Sons, Ltd., 372 Pape Ave., Toronto

Is Your  
Engine an  
Oil Gusher

?

### McQUAY-NORRIS Superoyl RINGS

If your motor is giving trouble with excess oil, it needs McQuay-Norris Superoyl Rings. A specially constructed ring with an oil reservoir that collects all excess oil from the cylinder, leaving just the film necessary for proper lubrication.

Used in the top groove only of each piston, with McQuay-Norris **LEAK-PROOF** Piston Rings in all lower grooves, to insure maximum compression, power and fuel economy.

This Book  
will save  
you More  
Time and  
Trouble.



By giving you complete information about all types of piston rings and enabling you to judge for yourself the claims of all rings. It will also show you what an important part piston rings play in a motor. For your own satisfaction, profit and protection, fill in coupon and send for your copy today.

McQUAY-NORRIS Mfg. Co.  
2800 Locust St., Dept. T.S., St. Louis, Mo.  
Please send me your book, "To Have and to Hold Power."

Name.....  
Street.....  
City.....

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# LANE

**MOTOR TRUCKS**

**MEET ALL  
DEMANDS**


AND, outside of the exceedingly profitable and attractive LANE agency agreement and the large discounts granted LANE DEALERS, you will be especially interested in the fact that you can positively bank on LANE TRUCK DELIVERIES when you need trucks—not sometimes—always.

**The Lane Motor Truck Co.**  
Kalamazoo, Michigan, U. S. A.

THE LANE LINE will absolutely meet all the working requirements of every truck buyer in your territory, Mr. Dealer, from the big manufacturer to the up-to-date farmer. That's because there are four splendid chassis models: 1¼, 2½, 3½ and 5 ton capacity—an extra wide range of body designs, and business-compelling list prices.

*You will be vitally interested in our dealers' proposition*

THE LANE MOTOR TRUCK Co.,  
Dept. K.,  
Kalamazoo, Michigan.

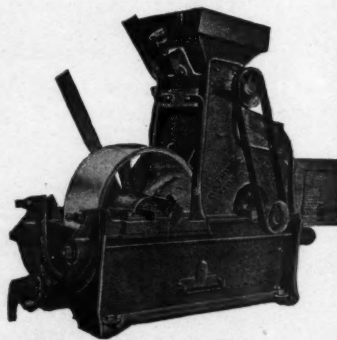
**Mail  
This  
Now**

Send me complete specifications of the Lane trucks and dealers' proposition.

Name .....

Address .....

**King**  
**TRAILER**  
ANN ARBOR  
MICH.



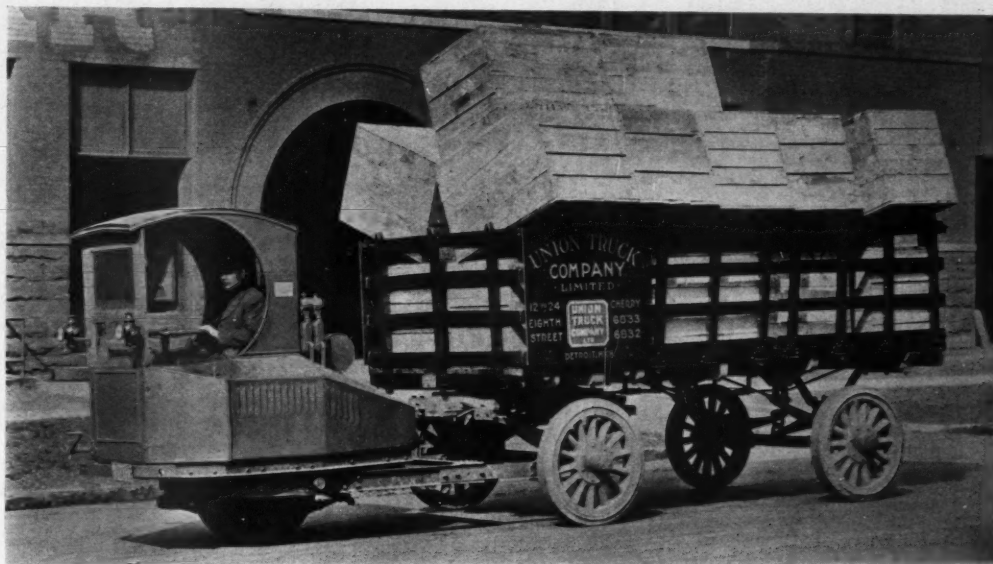
## "Digestion First"

Send for "Digestion First" booklet. A work of art pointing out the road to wealth. Presenting complete records of savings by others and a list of users you know.

**EXCEL MANUFACTURING CO.**  
POTTERSVILLE, NEW JERSEY

**Makers of the National Oat Crusher**

Made with motor attached or with pulley for belt driving



*The Autohorse Does It*

## A 5-Ton Truck for \$1850

The AUTOHORSE in combination with your present wagon equipment makes a highly efficient and economical motor truck.

The AUTOHORSE is all its name implies—a mechanical device that supplants the horse, low in first cost, low in cost of maintenance and will give as many hours of continuous service as your business requires and costs *nothing* when idle.

The AUTOHORSE follows the horse principle in “pulling” its load instead of *carrying* it, thus enabling a 22 H. P. motor to successfully handle a 5-ton load in the most difficult places and giving a greater fuel mileage than any method of motor hauling that has as yet been devised.

The AUTOHORSE has but *one* tire expense and one wheel, can turn and operate in less space than teams, having all the advantages of teams and motor trucks and *improving* on both.

*Ask Us About It*

### ONE WHEEL TRUCK COMPANY

2122 Chouteau Avenue

St. Louis, Missouri





## BREEN'S PIANO DERRICK

**What Everybody Needs**

**PIANO MOVERS** find that the hoisting and lowering of pianos is made easy, safe and economical by the use of this practical, adjustable Window Derrick. Handy to carry, easily put in place by one man, always ready and quickly utilized.

It is a practical, patented invention which has been in use for twelve years and has demonstrated its value beyond question. It clamps to window. There is also a swing under bar which is placed under outer end of piano and carries it in or out.

Every mover of safes, pianos or heavy merchandise needs Breen's Piano Derrick because it saves the strength of the men, means a tremendous saving of time, and obviates jams and scratches. Several firms have taken out third story window, set the derrick in place, hoisted piano, and replaced window in 25 minutes.

The Derrick Complete \$35.00  
Also manufacturers of Belts and Bars to hoist Pianos and Ropes, Blocks and Piano Covers  
Write to-day. Catalogue for the asking.

**WM. H. BREEN**  
219-231 Rutherford Ave., Charlestown, Mass.




Barrel elevated and revolved ready to unload

## LET THE MEN GO TO THE FRONT

Let the "Steel Man" do your work. One man with a Revolvator will often do the work of two or three men in piling barrels, cases, bales, etc. The Revolvator saves time, labor and storage space.

Put your piling problem up to us. Write for Bulletin T-42.

**REVOLVATOR COMPANY**  
389 Garfield Avenue Jersey City, N. J.  
Sales Agent  
N. Y. Revolving Portable Elevator Company

## Crushed Oats!



Patented

**Your Stock Gets More Nutriment from Less Oats**

Two of the many reasons why you should have an Oat Crusher in your stable are:

- 1st. Your stock is built up in bone and muscle. No colic, or stomach trouble.
- 2nd. You feed 15% to 20% less in weight, which saves you money and helps your "Uncle Sam" win the war.

Thousands of users will recommend  
Crushed Oats

Write us for further information.

**GIBSON OAT CRUSHER CO.**  
McCormick Bldg. Chicago, Ill.  
Eastern Office: 15 East 30th Street, New York City



## Better Protection of goods in shipment and storage

The problem of protecting rugs, carpets, draperies, etc., against moths, mice, germs, while in storage or in transit, is solved by the use of

### WHITE TAR PAPER


Made in two grades—Pine Tar and Cedar. Pine Tar for ordinary materials; Cedar for the finest fabrics. Put up in rolls of 12 sheets, each sheet 40 x 48, in full size and in continuous rolls 50 yds. to 1,000 yds. Also heavy tar bag paper cut 5 x 7 and packed 100 sheets to the carton. We sell Naphtaline Moth Balls, Flakes Crystals, Powder and Blocks; Lavender Compound and Cedar Compound in one-pound and two-pound packages, 100-pound boxes and barrels.

Write today for price list and full information.

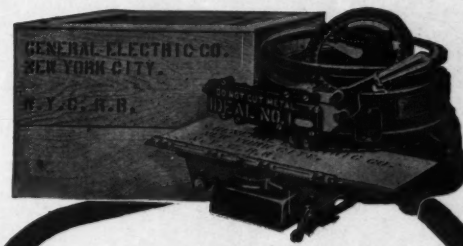
**The WHITE TAR COMPANY**  
CLIFF & JOHN STREETS, NEW YORK, N. Y.




DESIGN CONSTRUCTION FINANCING



**EBERT MESEROLL & CO.**  
ARCHITECTS & ENGINEERS  
GRAND CENTRAL TERMINAL BUILDING  
NEW YORK



## Safeguard Your Shipments

The day of hand-lettered shipments is past. It was a slow, cumbersome and uncertain system at best. Leading firms in all branches of industry are now marking their shipments boldly, plainly, legibly, with stencils cut on

### *The* **IDEAL** STENCIL MACHINE

In less than half a minute, the Ideal cuts paper stencils of your customer's names and addresses—each stencil marks any number of shipments—every one alike. Stencil-marked shipments not only are sure to go through with promptness and dispatch—but have a clean-cut, businesslike appearance.

#### Our Free Booklet

On shipping efficiency, "Safeguarding Your Shipments," explains the superiority of the Ideal. This booklet with sample stencils will be sent free on request. Write for it at once.

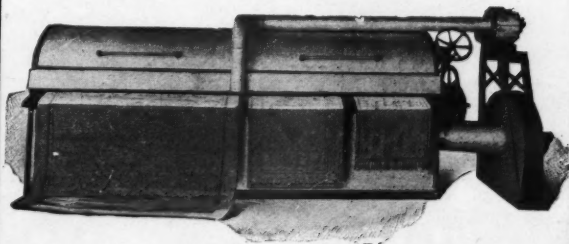
**IDEAL STENCIL MACHINE CO.**  
31 Ideal Block Belleville, Ill.

Sales offices in principal cities



## Because there is Big Money in It

storage and warehouse  
companies are installing  
this big rug cleaning  
machine



*The most perfect Rug Cleaner made*

**The Cleveland Laundry Machinery Mfg. Co.**  
CLEVELAND, O.

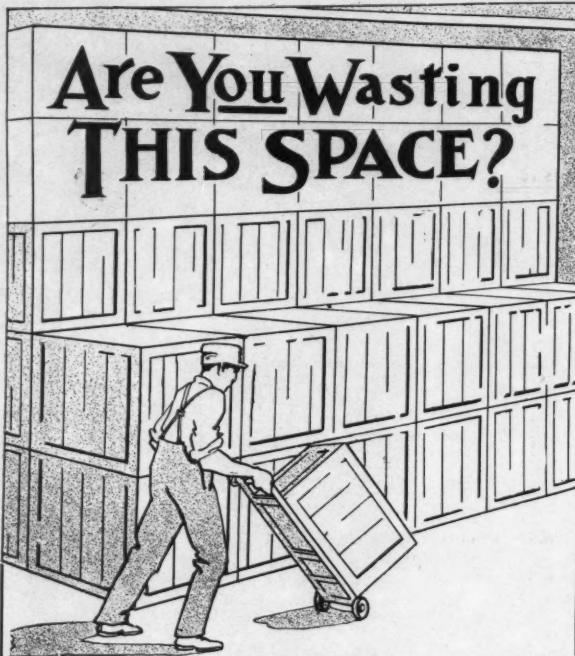
## Miniature Mazda Lamps for Automobiles and Flashlights

## Federal Miniature Lamp Division

National Lamp Works  
of the General Electric Co.

928 So. Michigan Avenue  
Chicago, Ill.





## Are You Wasting THIS SPACE?

### ECONOMY TIERING MACHINE

**Brings Every Inch Within Reach**

Don't lose all that valuable space near the ceiling just because your men can't reach it. With the Economy Tiering Machine they can pile stock to the limit of your capacity, and make every cubic foot of space earn its cost.

#### Saves Labor, Too

Two men with this machine can do more work than four to seven men without it. And they can do it better and faster besides.

#### Nine Overwhelming Features

For twenty-eight years we have manufactured nothing but portable elevators. We have tested every new theory. But we are satisfied that the Economy Tiering Machine, with its nine big points of merit, is the best that can be built. And our many users heartily endorse our claims.

#### Write for Complete Facts

Let us tell you more about this machine and what it will do for you.

#### ECONOMY ENGINEERING CO.

*Manufacturers of Economy Steel Barrel Racks*

408 South Washtenaw Avenue  
CHICAGO

New York Office: 85 Murray St.

*Foreign Agents*  
Brown Portable Elevator Co., Chicago



## You Get the Best Service



from your horses by the use of Capewell nails in shoeing. These nails *hold* the shoes tight and they *hold* them long.

Safety and satisfaction for the man who insists upon the use of Capewell nails.

The world's best nail at a fair price—not the cheapest regardless of quality.

### The Capewell Horse Nail Co.

HARTFORD, CONN.

*Leading Horse Nail Makers of the World*

*A TRIUMPH is your*

## BUCKEYE SILL PIANO TRUCK

*says an owner of four of them*

SELF-LIFTING PIANO TRUCK CO., Findlay, O.



End  
Truck  
Covers

Straps



## MOTOR TRUCKS

ALL WORM DRIVE

1 TON · 2 TON · 3½ TON

DART Trucks are unusually satisfactory for Transfermen

*Ask us for our nearest dealer*

DART MOTOR TRUCK COMPANY  
Dept. T WATERLOO, IA.

## Ask our Editors

If you need information relating to this field.

New equipment? new methods? facts or figures?

If we can serve you we'll be glad.



## If you don't find what you want here, your advertisement here will find it for you.

This Exchange section serves a real purpose in the industry by affording a central market place for the disposing of equipment no longer needed, and the securing of special apparatus at bargain prices. If you have any equipment for sale or wish to sell your business, this section is the logical place to advertise. All advertisements in this section will be accepted at a flat rate of three cents per word for each insertion.

**POSITION WANTED**—Estimator or foreman, ten years' experience, thoroughly understands household warehouse work in all its branches. Box 154, Transfer & Storage, 239 West 39th Street, New York City.

**WANTED**—An established, paying Transfer and Storage business in or around New York City. Give full particulars. Address Box 153, Transfer & Storage, 239 West 39th Street, New York City.

### WHO WANTS TO GO TO ALASKA?

A transfer, wood and coal business established in Alaska 20 years, doing a fine business, for sale. Exclusive mail contracts for all boats and railroad. Alaska is Uncle Sam's richest possession and THE coming EMPIRE of America. Ill health and old age only reasons for selling. Investigate. Address, Alaska Transfer, care Transfer & Storage, 239 West 39th Street, New York City.

**WANTED**—Suitable warehouse on seaboard in vicinity of Philadelphia and New York City or any intervening territory. One-story warehouse about seventy feet wide and from 300 to 500 feet long, equipped with Electric Crane. Building should have a hard floor, concrete or creosote block preferred. Must be conveniently located freight from the west, on a slip or river-front convenient for loading lighters to convey heavy machinery to vessels for shipment. Address Western Group, care Transfer & Storage, 239 West 39th Street, New York City.

**FOR SALE**—Storage and moving business in a fine growing southern city. Two four-story brick buildings, mill construction; have 626 automatic sprinklers. New two-ton truck. Nine-room residence on grounds. Now managed by owner. Bargain for someone. Owner wants to retire. Apply, Box 150, Transfer & Storage, 239 West 39th Street, New York City. Apr.—3t

**FOR SALE**—Merchandise and storage business in one of the best Southern cities. On account of being paralyzed, I will offer my entire business for sale. Anyone with \$10,000 in cash will find it is one of the best towns in the South to locate or invest your money. I cleared over \$4,000 last year, but have left my business to go to bed since my sickness. I have more business than I am able to attend to. Member of American Chain of Warehouses and Molton Distributing Association, also chosen distributors for the most important mail order houses and national merchandisers. My price is \$5,000. Unless you mean business, do not write. Address Box 151, care of Transfer & Storage, 239 West 39th Street, New York City.

**FOR SALE**—One-half or all of well established, paying transfer & Storage business, one at Joplin, Missouri, one at Tulsa, Oklahoma. Complete equipment. \$5,000 cash required. For particulars, address Transfer & Storage, P. O. Box 1138, Tulsa, Oklahoma. May-3t

**MANAGER WANTS POSITION**—Six years manager of large merchandise company; a capable executive and accountant. Will accept assistant's position. Age thirty-two; married. State salary and general duties. Credentials furnished. Address "C," care Transfer & Storage, 239 West 39th Street, New York City.

## Monroe Flegenheimer Warehouse Insurance Specialist

1451 Broadway, New York

Telephones, Bryant 6736-6976-3230

Can positively **reduce your fire insurance rate**. Remember a low rate is your best advertisement. Reference (by permission): Pioneer Fireproof Storage Warehouses, Lee Bros. Storage & Van Co.



# Listen!

—to the opinion of those who can appreciate, because of experience, the eminently satisfactory operation of

## "The Trackless Train"

"Impossible to do without it."—Erie R. R. Co., Binghamton, N. Y.

"Has come up to our full expectations."—United States Radiator Corp., Detroit, Mich.

"Living up to all expectations."—Continental Motors Corp., Detroit, Mich.

"Just the machine we need."—Anderson Lumber Corp., Marion, S. C.



The haulage problem in your plant may be more complicated or it may be simpler than these firms encountered, but the probabilities are that

## Mercury Tractors

Will not only speed up your operations but effect a marked saving in men and money as well.

A card will bring detailed information and a booklet, "The Best Evidence," both interesting and instructive.

## Mercury Manufacturing Company

4120 South Halsted Street

Chicago, U. S. A.

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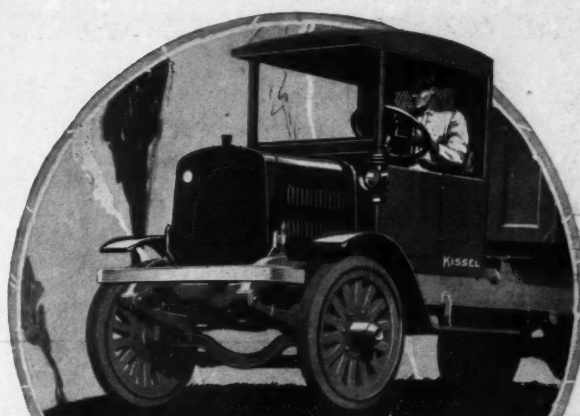
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## KISSEL TRUCKS

**The War Has Developed New Truck Construction Standards To Meet Your Requirements!**

**S**TRENGTH must be in abundance—unlimited power absolutely necessary—economy desirable, but dependable performance first. These service essentials reach their highest development in Kissel Trucks.

Kissel, realizing the unusual service now demanded of trucks, has built into Kissel Trucks proven mechanical features and structural innovations that have been proven out in over a hundred different lines of business.

The sturdy Kissel-built engine, perfected worm-drive rear axle, heavy duty front axle, heat-treated frame, springs, brakes, etc., are designed, in harmonious proportions and perfectly balanced, to reduce wear and prolong the life of the truck.

*Some of the largest concerns in the Transfer and Storage business are Kissel Truck owners. See your nearest Kissel dealer for reasons why.*

**KISSEL MOTOR CAR COMPANY**  
HARTFORD WISCONSIN, U. S. A.



**TO** help you keep your trucks in service at low cost, there is an Ahlberg Branch close by ready to give you service on your ball bearing requirements—both new and remade. Call our nearest branch when you need Ball Bearings

**REMADE**

**AHLBERG BEARING COMPANY**  
2636 MICHIGAN AVE. CHICAGO

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 Atlanta   Los Angeles   San Francisco   Portland, Ore.

**SPECIALS**

PLEASE MENTION TRANSFER &amp; STORAGE WHEN WRITING TO ADVERTISERS





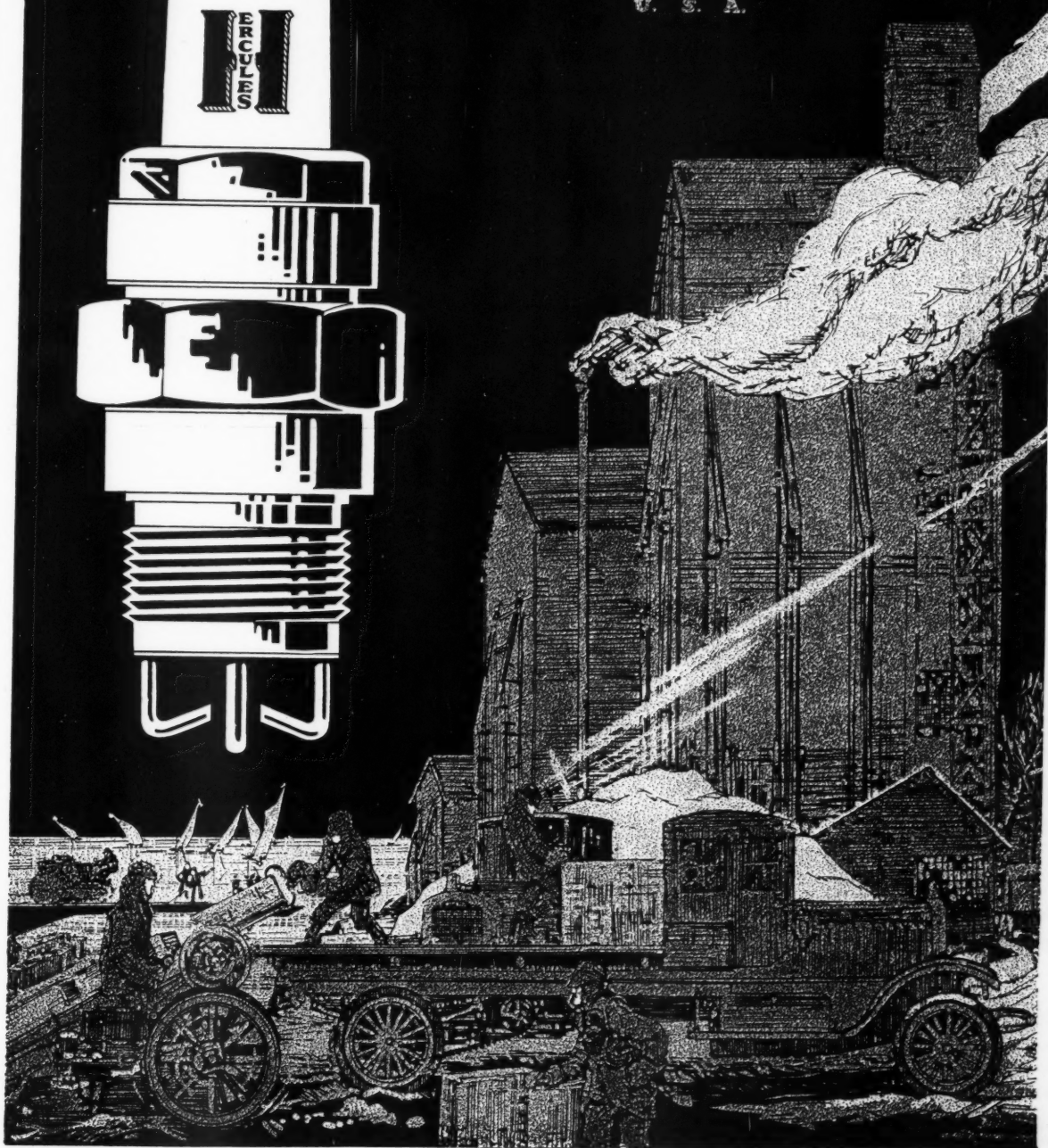
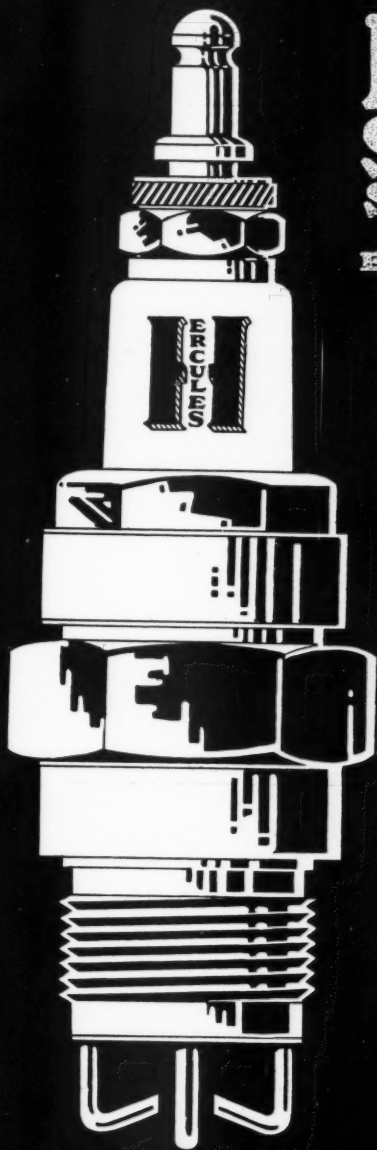


# HERCULES SPARK PLUGS

Strictly A Quality Product

ECLIPSE MFG. CO. INDIANAPOLIS IND.

MADE IN  
U. S. A.





# White Trucks



## INTER-CITY FREIGHT HAULING

**M**OVING and Transfer Companies are finding a new and profitable use for their trucking equipment in the increasing demand for fast inter-city freight service. Progressive firms are preparing to make this a permanent extension of their present business by installing additional motor trucks for long distance hauling.

These trucks should be the best that can be built. The long hauls, fast going and heavy loads required in this interurban service will soon wear out any ordinary truck. Only the highest grade mechanism can stand the strain of high pressure operation and continuous service.

White Trucks can be depended on to stand up and keep going day in and day out, month after month, year after year, under the heaviest loads and the longest hauls.

THE WHITE COMPANY  
CLEVELAND

